

## บรรณานุกรม

### ภาษาไทย

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นิชิต สุขเจริญพงษ์ และ ยืน ภู่วรรณ, โลตัส 1-2-3 เวอร์ชัน 2, บ. ซีเอ็ดยูเคชั่น จำกัด  
, กรุงเทพมหานคร, 2531.

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ภาคผนวก ตารางข้อมูลราคา ค่าแรง ค่าวัสดุ



TYPE	CODE	DESCRIBE	UNIT	MAT	LAB-COST	REMARK
METAL	05003.01	COVERING PLATE .15/.15 M.	SHEET	23.0	0.00	8 MM. THICK
METAL	05003.02	COVERING PLATE .15/.20 M.	SHEET	27.0	0.00	8 MM. THICK
METAL	05003.03	COVERING PLATE .20/.20 M.	SHEET	31.0	0.00	8 MM. THICK
METAL	05003.04	COVERING PLATE .20/.25 M.	SHEET	35.0	0.00	8 MM. THICK
METAL	05003.05	COVERING PLATE .25/.25 M.	SHEET	40.0	0.00	8 MM. THICK
METAL	05003.06	COVERING PLATE .25/.30 M.	SHEET	45.0	0.00	8 MM. THICK
DOORS & WINDOWS	08702.01	ALUMINIUM SCREEN WINDOW (FOLD)	SQ.M.	160	0.00	
DOORS & WINDOWS	08702.02	ALUMINIUM SCREEN WINDOW(SLIDING)	SQ.M.	600	0.00	
METAL	05531.01	GRATING 3'/ROD	ROD	13.0	0.00	
FURNISHINGS	09951	WHITE BOARD-MAGNETIC(.8/1.2 M.)	SET	550	0.00	
SITWORK	02100	CLEARING	SQ.M.	0.00	2.00	MECHANICAL INSTRUMENT
SITWORK	02201.01	COMPACTED SAND	CU.M.	100	8.00	
SITWORK	02201.02	COURSE SAND	CU.M.	150	8.00	
SITWORK	02201.03	FINE SAND	CU.M.	150	8.00	
SITWORK	02201.04	LATERITE	CU.M.	115	0.00	
SITWORK	02202.01	CRUSHED STONE	CU.M.	175	0.00	
SITWORK	02202.02	STONE 1	CU.M.	200	0.00	
SITWORK	02202.03	STONE 2	CU.M.	200	0.00	
SITWORK	02210.01	FILL & COMPACT EARTH	CU.M.	100	0.00	LUMSUM COST
SITWORK	02210.02	LOCAL FILL EARTH	CU.M.	45.0	0.00	
SITWORK	02210.03	SITE GRADING	CU.M.	85.0	0.00	
SITWORK	02220.01	GENERAL EXCAVATION	CU.M.	0.00	15.00	MECHANICAL INSTRUMENT
SITWORK	02220.02	EXCAVATION	CU.M.	0.00	35.00	LABOR MOVING < 2.5 KM.
SITWORK	02220.03	EXCAVATION & BACKFILLING	CU.M.	0.00	50.00	
SITWORK	02230	SOIL COMPACTION CONTROL	CU.M.	0.00	15.00	MECHANICAL INSTRUMENT
SITWORK	02300.01	PLATE BEARING TEST	POINT	5000	0.00	
SITWORK	02300.02	PLATE BEARING TEST COST	SUM	0.00	1500.00	
SITWORK	02300.03	BORING TEST	POINT	****	0.00	
SITWORK	02300.04	BORING TEST COST	SUM	0.00	3000.00	
SITWORK	02300.05	PILE LOAD TEST	POINT	****	0.00	
SITWORK	02300.06	PILE LOAD TEST COST	SUM	0.00	3000.00	
SITWORK	02301.01	WOOD PILE D=3"/3 M.	EACH	15.0	15.00	
SITWORK	02301.02	WOOD PILE D=4"/4 M.	EACH	35.0	25.00	
SITWORK	02301.03	WOOD PILE D=5"/5 M.	EACH	65.0	35.00	
SITWORK	02301.04	WOOD PILE D=6"/6 M.	EACH	65.0	35.00	
CONCRETE	03100.01	TIMBER CON. FORMWORK	SQ.M.	95.0	30.00	
CONCRETE	03100.02	TIMBER CON. FORMWORK	SQ.M.	115	40.00	HEIGHT = 5-7 M.
CONCRETE	03100.03	SURFACE TIMBER CON. FORMWORK	SQ.M.	105	35.00	SMOOTH TYPE
CONCRETE	03100.04	SURFACE TIMBER CON. FORMWORK	SQ.M.	115	45.00	ORNAMENTAL TYPE
CONCRETE	03200.01	REINFORCED CON.PILE D=6"/4 M.	EACH	210	40.00	
CONCRETE	03200.01	REINFORCED CON.PILE D=6"/4 M.	EACH	210	40.00	

TYPE	CODE	DESCRIBE	UNIT	HAT	LAB-COST	REMARK
CONCRETE	03200.02	REINFORCED CON.PILE D=6"/5 H.	EACH	290	50.00	
CONCRETE	03200.03	REINFORCED CON.PILE D=6"/6 H.	EACH	345	60.00	
CONCRETE	03300.01	COVERING CONCRETE 4 MM. THICK	SQ.M.	55.0	9.00	CAST IRON D= 6 MM.
CONCRETE	03300.02	COVERING CONCRETE 5 MM. THICK	SQ.M.	65.0	10.00	CAST IRON D= 6 MM.
CONCRETE	03301.01	CONCRETE 1:3:5	CU.M.	640	0.00	
CONCRETE	03301.02	CONCRETE 1:2:4	CU.M.	840	0.00	
CONCRETE	03301.03	CONCRETE 1:1.5:3	CU.M.	1000	0.00	
CONCRETE	03301.04	CONCRETE LABOR COST	CU.M.	140	0.00	ROAD, PATH, WELLS
CONCRETE	03301.05	CONCRETE LABOR COST	CU.M.	0.00	140.00	ROAD, PATH, WELLS
CONCRETE	03301.06	CONCRETE LABOR COST	CU.M.	0.00	160.00	BUILDING 3 FLOOR
CONCRETE	03301.07	CONCRETE LABOR COST	CU.M.	0.00	170.00	BUILDING 3 FLOOR
CONCRETE	03331.01	EXPOSED AGGREGATED STONE	SQ.M.	125	45.00	CEMENT+SAND
CONCRETE	03331.02	EXPOSED AGGREGATED GRAVEL	SQ.M.	135	45.00	CEMENT+SAND
CONCRETE	03331.03	EXPOSED AGGREGATED SAND	SQ.M.	35.0	45.00	CEMENT+SAND
CONCRETE	03340.01	PRESTRESSED CON.PILE .18/.18/8 H.	EACH	870	130.00	
CONCRETE	03340.02	PRESTRESSED CON.PILE .18/.18/10.5 H.	EACH	1150	170.00	
CONCRETE	03340.03	PRESTRESSED CON.PILE .18/.18/21 H.	EACH	2530	300.00	
CONCRETE	03340.04	PRESTRESSED CON.PILE .20/.20/12 H.	EACH	1670	210.00	
CONCRETE	03340.05	PRESTRESSED CON.PILE .20/.20/21 H.	EACH	3095	330.00	
CONCRETE	03340.06	PRESTRESSED CON.PILE .22/.22/10 H.	EACH	1610	220.00	
CONCRETE	03340.07	PRESTRESSED CON.PILE .22/.22/15 H.	EACH	2660	300.00	
CONCRETE	03340.08	PRESTRESSED CON.PILE .22/.22/21 H.	EACH	3640	400.00	
CONCRETE	03340.09	PRESTRESSED CON.PILE .26/.26/21 H.	EACH	5640	470.00	
CONCRETE	03340.10	PRESTRESSED CON.PILE .30/.30/21 H.	EACH	7300	620.00	
CONCRETE	03340.11	PRESTRESSED CON.PILE .35/.35/21 H.	EACH	9270	780.00	
CONCRETE	03340.12	PRESTRESSED CON.PILE .40/.40/21 H.	EACH	***	980.00	
CONCRETE	03341	PRE.CON.PILE(DH.).18/.18/12 H.	EACH	1000	120.00	
CONCRETE	03342.01	1-PRE.CON.PILE .18/.18/8 H.	EACH	660	110.00	
CONCRETE	03342.02	1-PRE.CON.PILE .18/.18/10.5 H.	EACH	905	145.00	
CONCRETE	03342.03	1-PRE.CON.PILE .18/.18/12 H.	EACH	1040	170.00	
CONCRETE	03342.04	1-PRE.CON.PILE .20/.20/14 H.	EACH	1245	190.00	

TYPE	CODE	DESCRIBE	UNIT	MAT	LAB-COST	REMARK
CONCRETE	03342.05	I-PRE.CON.PILE .20/.20/15 M.	EACH	1680	195.00	
CONCRETE	03342.06	I-PRE.CON.PILE .22/.22/14 M.	EACH	1820	220.00	
CONCRETE	03342.07	I-PRE.CON.PILE .22/.22/18 M.	EACH	2430	280.00	
CONCRETE	03342.08	I-PRE.CON.PILE .22/.22/21 M.	EACH	2930	320.00	
CONCRETE	03342.09	I-PRE.CON.PILE .26/.26/21 M.	EACH	3530	400.00	
CONCRETE	03342.10	I-PRE.CON.PILE .30/.30/21 M.	EACH	4705	470.00	
CONCRETE	03342.11	I-PRE.CON.PILE .35/.35/21 M.	EACH	6220	620.00	
CONCRETE	03342.12	I-PRE.CON.PILE .40/.40/21 M.	EACH	8720	780.00	
CONCRETE	03343.01	UNICO PRE.CON.PILE D=.20/21 M.	EACH	2960	350.00	
CONCRETE	03343.02	UNICO PRE.CON.PILE D=.25/21 M.	EACH	3570	490.00	
CONCRETE	03343.03	UNICO PRE.CON.PILE D=.30/21 M.	EACH	4670	570.00	
CONCRETE	03343.04	UNICO PRE.CON.PILE D=.35/21 M.	EACH	6090	710.00	
CONCRETE	03343.05	UNICO PRE.CON.PILE D=.40/21 M.	EACH	7395	850.00	
CONCRETE	03344	BORED PILE D=350 MM./21 M.	EACH	***	0.00	
METAL	05001	WIRE ROPE	KG.	15.0	0.00	
METAL	05001.01	NAILS	KG.	16.0	0.00	
METAL	05001.02	GALVANIZED NAILS	BOX	5.00	0.00	
METAL	05002.01	BOLT D=3/8",3"	EACH	1.00	0.00	
METAL	05002.02	BOLT D=3/8",4"	EACH	1.00	0.00	
METAL	05002.03	BOLT D=3/8",5"	EACH	1.25	0.00	
METAL	05002.04	BOLT D=3/8",6"	EACH	1.50	0.00	
METAL	05002.05	BOLT D=1/2",3"	EACH	1.50	0.00	
METAL	05002.06	BOLT D=1/2",4"	EACH	2.00	0.00	
METAL	05002.07	BOLT D=1/2",5"	EACH	2.50	0.00	
METAL	05002.08	BOLT D=1/2",6"	EACH	3.00	0.00	
METAL	05002.09	BOLT D=1/2",8"	EACH	3.75	0.00	
METAL	05002.10	BOLT D=1/2",10"	EACH	5.00	0.00	
METAL	05002.11	BOLT D=5/8",3"	EACH	3.00	0.00	
METAL	05002.12	BOLT D=5/8",4"	EACH	3.75	0.00	
METAL	05002.13	BOLT D=5/8",5"	EACH	5.00	0.00	
METAL	05002.14	BOLT D=5/8",6"	EACH	5.00	0.00	
METAL	05002.15	BOLT D=5/8",8"	EACH	7.50	0.00	
METAL	05002.16	BOLT D=5/8",10"	EACH	7.50	0.00	
METAL	05003.01	RIVET 12"	EACH	1.75	0.00	
METAL	05003.02	RIVET 16"	EACH	2.25	0.00	
METAL	05003.03	RIVET 9"	EACH	2.50	0.00	
METAL	05003.04	RIVET 10"	EACH	2.75	0.00	
METAL	05004.01	SCREW 2.5"	EACH	1.00	0.00	
METAL	05004.02	SCREW 3"	EACH	1.25	0.00	
METAL	05004.03	SCREW 4"	EACH	1.50	0.00	
METAL	05005.01	HOOK 6"	EACH	1.00	0.00	
METAL	05005.02	HOOK 8"	EACH	1.25	0.00	
METAL	05005.03	HOOK 10"	EACH	1.50	0.00	

TYPE	CODE	DESCRIBE	UNIT	MAT	LAB-COST	REMARK
METAL	05100.01	STEEL PLATE 0.5"/0.5"	ROD	56.0	0.00	1 ROD= 6 H.
METAL	05100.02	STEEL PLATE 0.75/0.75"	ROD	148	0.00	1 ROD= 6 H.
METAL	05100.03	STEEL PLATE 1.0"/1.0"	ROD	378	0.00	1 ROD= 6 H.
METAL	05122.01	Z-STRUCTURAL STEEL 50/25/15/2.3 MM.	ROD	171	0.00	12.36 KG./6 H.
METAL	05122.02	Z-STRUCTURAL STEEL 75/45/15/1.6 MM.	ROD	221	0.00	13.92 KG./6 H.
METAL	05122.03	Z-STRUCTURAL STEEL 75/45/15/2.3 MM.	ROD	283	0.00	19.50 KG./6 H.
METAL	05122.04	Z-STRUCTURAL STEEL 100/50/20/1.6 MM	ROD	269	0.00	17.23 KG./6 H.
METAL	05122.05	Z-STRUCTURAL STEEL 100/50/20/2.3 MM	ROD	352	0.00	24.36 KG./6 H.
METAL	05122.06	Z-STRUCTURAL STEEL 100/50/20/3.2 MM	ROD	479	0.00	33.03 KG./6 H.
METAL	05122.07	Z-STRUCTURAL STEEL 125/50/20/2.3 MM	ROD	390	0.00	27.06 KG./6 H.
METAL	05122.08	Z-STRUCTURAL STEEL 125/50/20/3.2 MM	ROD	530	0.00	36.78 KG./6 H.
METAL	05122.09	Z-STRUCTURAL STEEL 150/50/20/2.3 MM	ROD	431	0.00	29.76 KG./6 H.
METAL	05122.10	Z-STRUCTURAL STEEL 150/50/20/3.2 MM	ROD	585	0.00	40.35 KG./6 H.
METAL	05122.11	Z-STRUCTURAL STEEL 150/65/20/3.2 MM	ROD	654	0.00	45.06 KG./6 H.
METAL	05122.12	Z-STRUCTURAL STEEL 150/75/25/3.2 MM	ROD	718	0.00	49.56 KG./6 H.
METAL	05122.13	Z-STRUCTURAL STEEL 200/75/25/3.2 MM	ROD	827	0.00	49.56 KG./6 H.
METAL	05123.01	C-STRUCTURAL STEEL 50/30/10/2.3 MM	ROD	233	0.00	13.50 KG./6 H.
METAL	05123.02	C-STRUCTURAL STEEL 60/30/10/1.6 MM	ROD	223	0.00	9.78 KG./6 H.
METAL	05123.03	C-STRUCTURAL STEEL 60/30/10/2.3 MM	ROD	269	0.00	15.50 KG./6 H.
METAL	05123.04	C-STRUCTURAL STEEL 75/35/15/2.3 MM	ROD	251	0.00	17.34 KG./6 H.
METAL	05123.05	C-STRUCTURAL STEEL 75/45/15/2.3 MM	ROD	278	0.00	19.50 KG./6 H.
METAL	05123.06	C-STRUCTURAL STEEL 80/40/15/2.3 MM	ROD	275	0.00	18.96 KG./6 H.
METAL	05123.07	C-STRUCTURAL STEEL 80/40/15/2.6 MM	ROD	323	0.00	21.18 KG./6 H.

TYPE	CODE	DESCRIBE	UNIT	MAT	LAB-COST	REMARK
METAL	05123.08	C-STRUCTURAL STEEL 100/50/20/2.3 MM	ROD	326	0.00	24.36 KG./6 M.
METAL	05123.09	C-STRUCTURAL STEEL 100/50/20/2.6 MM	ROD	389	0.00	27.30 KG./6 M.
METAL	05123.10	C-STRUCTURAL STEEL 100/50/20/3.2 MM	ROD	479	0.00	33.00 KG./6 M.
METAL	05123.11	C-STRUCTURAL STEEL 120/60/20/2.3 MM	ROD	492	0.00	28.68 KG./6 M.
METAL	05123.12	C-STRUCTURAL STEEL 120/60/20/2.6 MM	ROD	451	0.00	32.16 KG./6 M.
METAL	05123.13	C-STRUCTURAL STEEL 120/60/20/3.2 MM	ROD	529	0.00	39.00 KG./6 M.
METAL	05123.14	C-STRUCTURAL STEEL 125/50/20/2.3 MM	ROD	390	0.00	27.06 KG./6 M.
METAL	05123.15	C-STRUCTURAL STEEL 125/50/20/3.2 MM	ROD	530	0.00	36.78 KG./6 M.
METAL	05123.16	C-STRUCTURAL STEEL 150/50/20/2.3 MM	ROD	431	0.00	29.76 KG./6 M.
METAL	05123.17	C-STRUCTURAL STEEL 150/50/20/3.2 MM	ROD	585	0.00	40.56 KG./6 M.
METAL	05123.18	C-STRUCTURAL STEEL 150/65/20/2.3 MM	ROD	479	0.00	33.00 KG./6 M.
METAL	05123.19	C-STRUCTURAL STEEL 150/65/20/3.2 MM	ROD	654	0.00	45.06 KG./6 M.
METAL	05123.20	C-STRUCTURAL STEEL 150/70/20/4.0 MM	ROD	822	0.00	56.52 KG./6 M.
METAL	05123.21	C-STRUCTURAL STEEL 150/75/25/3.2 MM	ROD	718	0.00	49.56 KG./6 M.
METAL	05123.22	C-STRUCTURAL STEEL 165/80/25/4.0 MM	ROD	937	0.00	64.06 KG./6 M.
METAL	05123.23	C-STRUCTURAL STEEL 200/75/25/3.2 MM	ROD	827	0.00	57.12 KG./6 M.
METAL	05123.24	C-STRUCTURAL STEEL 250/75/25/4.5 MM	ROD	1296	0.00	89.52 KG./6 M.
METAL	05124.01	I-STRUCTURAL STEEL 40/20/20/1.6 MM	ROD	95.0	0.00	5.65 KG./6 M.
METAL	05124.02	I-STRUCTURAL STEEL 40/20/20/2.3 MM	ROD	113	0.00	7.86 KG./6 M.
METAL	05124.03	I-STRUCTURAL STEEL 40/40/40/3.2 MM	ROD	239	0.00	16.50 KG./6 M.
METAL	05124.04	I-STRUCTURAL STEEL 60/30/30/1.6 MM	ROD	134	0.00	8.44 KG./6 M.
METAL	05124.05	I-STRUCTURAL STEEL 60/30/30/2.3 MM	ROD	136	0.00	12.18 KG./6 M.



TYPE	CODE	DESCRIBE	UNIT	MAT	LAB-COST	REMARK
METAL	05124.06	[-STRUCTURAL STEEL 75/40/15/2.3 MM	ROD	191	0.00	13.26 KG./6 M.
METAL	05124.07	[-STRUCTURAL STEEL 75/40/15/3.2 MM	ROD	260	0.00	18.00 KG./6 M.
METAL	05124.08	[-STRUCTURAL STEEL 80/40/40/2.3 MM	ROD	241	0.00	16.50 KG./6 M.
METAL	05124.09	[-STRUCTURAL STEEL 80/40/40/2.6 MM	ROD	267	0.00	18.54 KG./6 M.
METAL	05124.10	[-STRUCTURAL STEEL 100/40/40/2.3 MM	ROD	269	0.00	18.66 KG./6 M.
METAL	05124.11	[-STRUCTURAL STEEL 100/40/40/2.6 MM	ROD	302	0.00	21.00 KG./6 M.
METAL	05124.12	[-STRUCTURAL STEEL 100/40/40/3.2 MM	ROD	369	0.00	25.56 KG./6 M.
METAL	05124.13	[-STRUCTURAL STEEL 100/50/15/2.3 MM	ROD	245	0.00	17.04 KG./6 M.
METAL	05124.14	[-STRUCTURAL STEEL 100/50/50/2.3 MM	ROD	301	0.00	26.55 KG./6 M.
METAL	05124.15	[-STRUCTURAL STEEL 100/50/50/2.6 MM	ROD	338	0.00	29.87 KG./6 M.
METAL	05124.16	[-STRUCTURAL STEEL 100/50/50/3.2 MM	ROD	412	0.00	36.38 KG./6 M.
METAL	05124.17	[-STRUCTURAL STEEL 120/40/40/2.6 MM	ROD	328	0.00	23.46 KG./6 M.
METAL	05124.18	[-STRUCTURAL STEEL 120/40/40/3.2 MM	ROD	399	0.00	28.56 KG./6 M.
METAL	05124.19	[-STRUCTURAL STEEL 150/50/50/3.2 MM	ROD	506	0.00	36.12 KG./6 M.
METAL	05124.20	[-STRUCTURAL STEEL 150/50/50/4.0 MM	ROD	625	0.00	44.64 KG./6 M.
METAL	05124.21	[-STRUCTURAL STEEL 150/50/50/4.5 MM	ROD	698	0.00	49.86 KG./6 M.
METAL	05124.22	[-STRUCTURAL STEEL 150/75/30/6.0 MM	ROD	931	0.00	66.60 KG./6 M.
METAL	05124.23	[-STRUCTURAL STEEL 150/75/75/4.0 MM	ROD	755	0.00	54.00 KG./6 M.
METAL	05124.24	[-STRUCTURAL STEEL 150/75/75/4.5 MM	ROD	847	0.00	60.60 KG./6 M.
METAL	05124.25	[-STRUCTURAL STEEL 200/50/50/3.2 MM	ROD	606	0.00	43.62 KG./6 M.
METAL	05124.26	[-STRUCTURAL STEEL 200/50/50/4.5 MM	ROD	847	0.00	60.60 KG./6 M.
METAL	05124.27	[-STRUCTURAL STEEL 200/50/50/6.0 MM	ROD	1109	0.00	79.20 KG./6 M.

TYPE	CODE	DESCRIBE	UNIT	QTY	UNIT COST	TOTAL COST	REMARK
METAL	05124.28	L-STRUCTURAL STEEL 200/75/75/4.5 MM	ROD	990	0.00 70.80	70.80	KG./6 M.
METAL	05124.29	L-STRUCTURAL STEEL 200/75/75/6.0 MM	ROD	1310	0.00 93.60	93.60	KG./6 M.
METAL	05125.01	L-STRUCTURAL STEEL 30/30/3.2 MM	ROD	126	0.00 8.28	8.28	KG./6 M.
METAL	05125.02	L-STRUCTURAL STEEL 40/40/3.2 MM	ROD	163	0.00 11.28	11.28	KG./6 M.
METAL	05125.03	L-STRUCTURAL STEEL 40/30/4.0 MM	ROD	170	0.00 11.82	11.82	KG./6 M.
METAL	05125.04	L-STRUCTURAL STEEL 40/40/4.5 MM	ROD	219	0.00 15.24	15.24	KG./6 M.
METAL	05125.05	L-STRUCTURAL STEEL 45/45/3.2 MM	ROD	148	0.00 12.78	12.78	KG./6 M.
METAL	05125.06	L-STRUCTURAL STEEL 50/50/2.3 MM	ROD	153	0.00 10.44	10.44	KG./6 M.
METAL	05125.07	L-STRUCTURAL STEEL 50/50/3.2 MM	ROD	207	0.00 14.28	14.28	KG./6 M.
METAL	05125.08	L-STRUCTURAL STEEL 55/50/4.0 MM	ROD	267	0.00 18.36	18.36	KG./6 M.
METAL	05125.09	L-STRUCTURAL STEEL 55/50/6.0 MM	ROD	385	0.00 26.52	26.52	KG./6 M.
METAL	05125.10	L-STRUCTURAL STEEL 60/40/4.0 MM	ROD	246	0.00 17.46	17.46	KG./6 M.
METAL	05125.11	L-STRUCTURAL STEEL 60/40/6.0 MM	ROD	365	0.00 25.14	25.14	KG./6 M.
METAL	05125.12	L-STRUCTURAL STEEL 60/60/3.2 MM	ROD	251	0.00 17.28	17.28	KG./6 M.
METAL	05125.13	L-STRUCTURAL STEEL 75/30/3.2 MM	ROD	219	0.00 15.06	15.06	KG./6 M.
METAL	05125.14	L-STRUCTURAL STEEL 75/50/2.3 MM	ROD	191	0.00 13.14	13.14	KG./6 M.
METAL	05125.15	L-STRUCTURAL STEEL 75/50/3.2 MM	ROD	626	0.00 18.06	18.06	KG./6 M.
METAL	05125.16	L-STRUCTURAL STEEL 75/50/4.0 MM	ROD	308	0.00 22.14	22.14	KG./6 M.
METAL	05125.17	L-STRUCTURAL STEEL 75/50/6.0 MM	ROD	446	0.00 23.16	23.16	KG./6 M.
METAL	05125.18	L-STRUCTURAL STEEL 85/70/6.0 MM	ROD	560	0.00 40.38	40.38	KG./6 M.
METAL	05125.19	L-STRUCTURAL STEEL 85/70/8.0 MM	ROD	732	0.00 52.74	52.74	KG./6 M.
METAL	05125.20	L-STRUCTURAL STEEL 100/50/4.0 MM	ROD	371	0.00 26.76	26.76	KG./6 M.

TYPE	CODE	DESCRIBE	UNIT	MAT	LAB-COST	REMARK
METAL	05125.21	L-STRUCTURAL STEEL 100/50/6.0 MM	ROD	543	0.00	39.18 KG./6 M.
METAL	05125.22	L-STRUCTURAL STEEL 100/75/4.0 MM	ROD	473	0.00	31.50 KG./6 M.
METAL	05125.23	L-STRUCTURAL STEEL 100/75/6.0 MM	ROD	641	0.00	46.20 KG./6 M.
METAL	05400.01	LIGHT STEEL FRAMING 0.5"/0.5"/0.9MM	ROD	24.0	0.00	1 ROD= 6 M.
METAL	05400.02	LIGHT STEEL FRAMING .75"/.75"/0.9MM	ROD	35.0	0.00	1 ROD= 6 M.
METAL	05400.03	LIGHT STEEL FRAMING 1.0"/1.0"/1.2MM	ROD	77.0	0.00	1 ROD= 6 M.
METAL	05400.04	LIGHT STEEL FRAMING 1.5"/1.5"/2.3MM	ROD	203	0.00	1 ROD= 6 M.
METAL	05400.05	LIGHT STEEL FRAMING 2.0"/2.0"/1.6MM	ROD	233	0.00	1 ROD= 6 M.
METAL	05400.06	LIGHT STEEL FRAMING 2.0"/4.0"/2.3MM	ROD	348	0.00	1 ROD= 6 M.
METAL	05400.07	LIGHT STEEL FRAMING 4.0"/4.0"/2.3MM	ROD	465	0.00	1 ROD= 6 M.
METAL	05400.08	LIGHT STEEL FRAMING 4.0"/4.0"/3.2MM	ROD	660	0.00	1 ROD= 6 M.
METAL	05521.01	STK. PIPE&TUBE 21.7/1.9/ D=0.5"	ROD	93.0	0.00	5.42 KG./6 M.
METAL	05521.02	STK. PIPE&TUBE 27.2/2.3/ D=0.75"	ROD	128	0.00	8.07 KG./6 M.
METAL	05521.03	STK. PIPE&TUBE 34.0/2.2/ D=1.00"	ROD	163	0.00	10.04 KG./6 M.
METAL	05521.04	STK. PIPE&TUBE 42.7/2.3/ D=1.25"	ROD	204	0.00	13.30 KG./6 M.
METAL	05521.05	STK. PIPE&TUBE 48.6/3.2/ D=1.50"	ROD	319	0.00	21.09 KG./6 M.
METAL	05521.06	STK. PIPE&TUBE 60.5/3.6/ D=2.00"	ROD	441	0.00	29.81 KG./6 M.
METAL	05521.07	STK. PIPE&TUBE 76.3/3.2/ D=2.50"	ROD	504	0.00	32.53 KG./6 M.
METAL	05521.08	STK. PIPE&TUBE 76.3/4.2/ D=2.50"	ROD	653	0.00	46.22 KG./6 M.
METAL	05521.09	STK. PIPE&TUBE 89.1/3.2/ D=3.00"	ROD	593	0.00	39.23 KG./6 M.
METAL	05521.10	STK. PIPE&TUBE 101.6/3.5/ D=3.50"	ROD	822	0.00	49.40 KG./6 M.
METAL	05521.11	STK. PIPE&TUBE 114.3/4.5/ D=4.00"	ROD	1101	0.00	70.79 KG./6 M.

TYPE	CODE	DESCRIBE	UNIT	QTY	LAB-COST	REMARK
METAL	05530.01	WIRE MESH 1.5"/1.5" NO.10	SQ.M.	64.0	0.00	
METAL	05530.02	WIRE MESH 2"/2" NO.10	SQ.M.	51.0	0.00	
METAL	05540	STEEL LABOR COST	TON	0.00	1100.00	
METAL	05541.01	ROUND BAR STEEL Ø=6 MM.	TON	***	0.00	2.22 KG./10 M.
METAL	05541.02	ROUND BAR STEEL Ø=9 MM.	TON	***	0.00	4.99 KG./10 M.
METAL	05541.03	ROUND BAR STEEL Ø=12 MM.	TON	9720	0.00	8.38 KG./10 M.
METAL	05541.04	ROUND BAR STEEL Ø=15 MM.	TON	9480	0.00	22.3 KG./10 M.
METAL	05541.05	ROUND BAR STEEL Ø=19 MM.	TON	9480	0.00	38.5 KG./10 M.
METAL	05542.01	DEFORMED BAR STEEL Ø=10 MM.	TON	***	0.00	8.19 KG./10 M.
METAL	05542.02	DEFORMED BAR STEEL Ø=12 MM.	TON	***	0.00	8.88 KG./10 M.
METAL	05542.03	DEFORMED BAR STEEL Ø=16 MM.	TON	***	0.00	15.80 KG./10 M.
METAL	05542.04	DEFORMED BAR STEEL Ø=20 MM.	TON	***	0.00	24.70 KG./10 M.
METAL	05542.05	DEFORMED BAR STEEL Ø=25 MM.	TON	***	0.00	38.50 KG./10 M.
METAL	05542.06	DEFORMED BAR STEEL Ø=28 MM.	TON	***	0.00	48.30 KG./10 M.
METAL	05731.01	MILD STEEL PLATE 4'/8', 1.6 MM. THICK	SHEET	460	0.00	
METAL	05731.02	MILD STEEL PLATE 4'/8', 3.0 MM. THICK	SHEET	800	0.00	
METAL	05731.03	MILD STEEL PLATE 4'/8', 6.0 MM. THICK	SHEET	1610	0.00	
METAL	05731.04	MILD STEEL PLATE 4'/8', 9.0 MM. THICK	SHEET	2500	0.00	
METAL	05731.05	MILD STEEL PLATE 4'/8', 12 MM. THICK	SHEET	2970	0.00	
METAL	05732.01	FLOOR PLATE 4'/8', 2.3 MM. THICK	SHEET	755	0.00	
METAL	05732.02	FLOOR PLATE 4'/8', 3.0 MM. THICK	SHEET	950	0.00	
METAL	05732.03	FLOOR PLATE 4'/8', 4.5 MM. THICK	SHEET	1670	0.00	
METAL	05733.01	FLOOR PLATE 4'/8', 1.2 MM. THICK	SHEET	1780	0.00	
METAL	05733.02	FLOOR PLATE 4'/8', 1.5 MM. THICK	SHEET	2080	0.00	
DOORS & WINDOWS	08101	STEEL FRAMES 2"/4"	M.	125	45.00	
DOORS & WINDOWS	08102.01	STEEL DOOR (NO EYED CLOSE)	SQ.M.	315	0.00	
DOORS & WINDOWS	08102.02	STEEL DOOR ( EYED CLOSE)	SQ.M.	450	0.00	
DOORS&WINDOWS	08120.01	ALUMINIUM DOOR 0.9/2.5, 0.9/2.0 M.	SET	3800	950.00	
DOORS&WINDOWS	08120.02	ALUMINIUM DOOR 0.9/2.0, 0.9/2.0 M.	SET	3360	840.00	
DOORS&WINDOWS	08121.01	DOUBLE ALU.DOORS 3.6/2.5, 1.8/2 M.	SET	***	2640.00	
DOORS&WINDOWS	08121.02	DOUBLE ALU.DOORS 4.0/2.5, 1.8/2 M.	SET	***	2970.00	
DOORS&WINDOWS	08121.03	DOUBLE ALU.DOORS 2.0/2.5, 2.0/2 M.	SET	9720	2330.00	
DOORS&WINDOWS	08121.04	DOUBLE ALU.DOORS 3.6/2.0, 1.8/2 M.	SET	***	2540.00	



TYPE	CODE	DESCRIBE	UNIT	MAT LAB-COST	REMARK
DOORS&WINDOWS	08121.05	DOUBLE ALU.DOORS 4.0/2.0,1.8/2 H.	SET	*** 2600.00	
DOORS&WINDOWS	08121.06	DOUBLE ALU.DOORS 2.0/2.0,2.0/2 H.	SET	8600 2150.00	
DOORS&WINDOWS	08121.07	SINGLE ALU.DOOR 1.0/2.5,1.0/2 H.	SET	5200 1130.00	
DOORS&WINDOWS	08121.08	SINGLE ALU.DOOR 3.0/2.5,1.0/2 H.	SET	7760 1940.00	
DOORS&WINDOWS	08121.09	SINGLE ALU.DOOR 1.0/2.0,1.0/2 H.	SET	4760 1190.00	
DOORS&WINDOWS	08121.10	SINGLE ALU.DOOR 3.0/2.0,1.0/2 H.	SET	6600 1650.00	
DOORS&WINDOWS	08122.01	SLIDING ALU.DOOR 3.6/2.5,3.6/2 H.	SET	5720 1430.00	
DOORS&WINDOWS	08122.02	SLIDING ALU.DOOR 4.0/2.5,4.0/2 H.	SET	6040 1510.00	
DOORS&WINDOWS	08122.03	SLIDING ALU.DOOR 2.0/2.5,2.0/2 H.	SET	3680 920.00	
DOORS&WINDOWS	08122.04	SLIDING ALU.DOOR 2.0/2.0,2.0/2 H.	SET	2240 560.00	
DOORS&WINDOWS	08122.05	SLIDING ALU.DOOR 4.0/2.2,2.0/2.2 H.	SET	4160 1040.00	
DOORS&WINDOWS	08122.06	SLIDING ALU.DOOR 3.6/2.0,0.9/2.0 H.	SET	3800 950.00	
DOORS&WINDOWS	08122.07	SLIDING ALU.DOOR 4.0/2.0,2.0/2.0 H.	SET	3920 980.00	
DOORS & WINDOWS	08201.01	TIMBER FRAMES 2"/4"	H.	0.00 10.00	
DOORS & WINDOWS	08202	FRAMES 2"/4"	H.	0.00 10.00	
DOORS & WINDOWS	08203.01	TEAK WOOD FRAMES 1.25"/4"	H.	60.0 0.00	
DOORS & WINDOWS	08203.02	TEAK WOOD FRAMES 1.50"/4"	H.	71.0 0.00	
DOORS & WINDOWS	08204.01	TEAK V-DOOR 1.25"/4", .6/1.8 H.	EACH	580 0.00	
DOORS & WINDOWS	08204.01	TEAK V-DOOR 1.50"/4", .6/1.8 H.	EACH	650 0.00	
DOORS & WINDOWS	08204.02	TEAK V-DOOR 1.25"/4", .7/2.0 H.	EACH	645 0.00	
DOORS & WINDOWS	08204.02	TEAK V-DOOR 1.50"/4", .7/2.0 H.	EACH	770 0.00	
DOORS & WINDOWS	08204.03	TEAK V-DOOR 1.25"/4", .8/2.0 H.	EACH	670 0.00	
DOORS & WINDOWS	08204.03	TEAK V-DOOR 1.50"/4", .8/2.0 H.	EACH	825 0.00	
DOORS & WINDOWS	08204.04	TEAK V-DOOR 1.25"/4", .9/2.0 H.	EACH	735 0.00	
DOORS & WINDOWS	08204.04	TEAK V-DOOR 1.50"/4", .9/2.0 H.	EACH	940 0.00	
DOORS & WINDOWS	08204.05	TEAK V-DOOR 1.25"/4", 1/2.0 H.	EACH	800 0.00	
DOORS & WINDOWS	08204.05	TEAK V-DOOR 1.50"/4", 1/2.0 H.	EACH	1050 0.00	
DOORS & WINDOWS	08206.01	TIMBER V-DOOR .6/1.8 H.	EACH	300 0.00	
DOORS & WINDOWS	08206.02	TIMBER V-DOOR .7/2.0 H.	EACH	340 0.00	
DOORS & WINDOWS	08206.03	TIMBER V-DOOR .8/2.0 H.	EACH	360 0.00	

TYPE	CODE	DESCRIBE	UNIT	MAT	LAB-COST	REMARK
DOORS & WINDOWS	08206.04	TIMBER V-DOOR .9/2.0 H.	EACH	420	0.00	
DOORS & WINDOWS	08206.05	TIMBER V-DOOR 1/2.0 H.	EACH	450	0.00	
DOORS & WINDOWS	08207	DOOR&ACCESSORIES LABOR COST	SQ. H.	0.00	30.00	
DOORS&WINDOWS	08207.01	RUBBER DOOR (IN) .6/1.8 H.	EACH	285	0.00	
DOORS&WINDOWS	08207.02	RUBBER DOOR (IN) .6/2.0 H.	EACH	315	0.00	
DOORS&WINDOWS	08207.03	RUBBER DOOR (IN) .7/1.8 H.	EACH	330	0.00	
DOORS&WINDOWS	08207.04	RUBBER DOOR (IN) .7/2.0 H.	EACH	350	0.00	
DOORS&WINDOWS	08207.05	RUBBER DOOR (IN) .7/2.1 H.	EACH	370	0.00	
DOORS&WINDOWS	08207.06	RUBBER DOOR (IN) .8/1.8 H.	EACH	360	0.00	
DOORS&WINDOWS	08207.07	RUBBER DOOR (IN) .8/2.0 H.	EACH	400	0.00	
DOORS&WINDOWS	08207.08	RUBBER DOOR (IN) .8/2.1 H.	EACH	415	0.00	
DOORS&WINDOWS	08207.09	RUBBER DOOR (IN) .9/2.0 H.	EACH	445	0.00	
DOORS&WINDOWS	08207.10	RUBBER DOOR (IN) .9/2.1 H.	EACH	465	0.00	
DOORS&WINDOWS	08207.11	RUBBER DOOR (IN) 1/2.0 H.	EACH	485	0.00	
DOORS&WINDOWS	08207.12	RUBBER DOOR (IN) 1/2.1 H.	EACH	510	0.00	
DOORS&WINDOWS	08207.12	RUBBER DOOR (OUT) 1/2.1 H.	EACH	510	0.00	
DOORS&WINDOWS	08207.13	RUBBER DOOR (OUT) .6/1.8 H.	EACH	350	0.00	
DOORS&WINDOWS	08207.14	RUBBER DOOR (OUT) .6/2.0 H.	EACH	330	0.00	
DOORS&WINDOWS	08207.15	RUBBER DOOR (OUT) .7/1.8 H.	EACH	395	0.00	
DOORS&WINDOWS	08207.16	RUBBER DOOR (OUT) .7/2.0 H.	EACH	420	0.00	
DOORS&WINDOWS	08207.17	RUBBER DOOR (OUT) .7/2.1 H.	EACH	440	0.00	
DOORS&WINDOWS	08207.18	RUBBER DOOR (OUT) .8/1.8 H.	EACH	430	0.00	
DOORS&WINDOWS	08207.19	RUBBER DOOR (OUT) .8/2.0 H.	EACH	465	0.00	
DOORS&WINDOWS	08207.20	RUBBER DOOR (OUT) .8/2.1 H.	EACH	480	0.00	
DOORS&WINDOWS	08207.21	RUBBER DOOR (OUT) .9/2.0 H.	EACH	510	0.00	
DOORS&WINDOWS	08207.22	RUBBER DOOR (OUT) .9/2.1 H.	EACH	535	0.00	
DOORS&WINDOWS	08207.23	RUBBER DOOR (OUT) 1/2.0 H.	EACH	485	0.00	
DOORS&WINDOWS	08207.24	RUBBER DOOR (OUT) 1/2.1 H.	EACH	580	0.00	
DOORS&WINDOWS	08208.01	TEAK WOOD DOOR (IN) .6/1.8 H.	EACH	445	0.00	
DOORS&WINDOWS	08208.02	TEAK WOOD DOOR (IN) .6/2.0 H.	EACH	485	0.00	
DOORS&WINDOWS	08208.03	TEAK WOOD DOOR (IN) .7/1.8 H.	EACH	510	0.00	
DOORS&WINDOWS	08208.04	TEAK WOOD DOOR (IN) .7/2.0 H.	EACH	540	0.00	
DOORS&WINDOWS	08208.05	TEAK WOOD DOOR (IN) .7/2.1 H.	EACH	565	0.00	
DOORS&WINDOWS	08208.06	TEAK WOOD DOOR (IN) .8/1.8 H.	EACH	555	0.00	
DOORS&WINDOWS	08208.07	TEAK WOOD DOOR (IN) .8/2.0 H.	EACH	595	0.00	
DOORS&WINDOWS	08208.08	TEAK WOOD DOOR (IN) .8/2.1 H.	EACH	625	0.00	
DOORS&WINDOWS	08208.09	TEAK WOOD DOOR (IN) .9/2.0 H.	EACH	665	0.00	
DOORS&WINDOWS	08208.10	TEAK WOOD DOOR (IN) .9/2.1 H.	EACH	690	0.00	
DOORS&WINDOWS	08208.11	TEAK WOOD DOOR (IN) 1/2.0 H.	EACH	730	0.00	
DOORS&WINDOWS	08208.12	TEAK WOOD DOOR (IN) 1/2.1 H.	EACH	760	0.00	
DOORS&WINDOWS	08208.13	TEAK WOOD DOOR (OUT) .6/1.8 H.	EACH	550	0.00	
DOORS&WINDOWS	08208.14	TEAK WOOD DOOR (OUT) .6/2.0 H.	EACH	590	0.00	
DOORS&WINDOWS	08208.15	TEAK WOOD DOOR (OUT) .7/1.8 H.	EACH	615	0.00	

TYPE	CODE	DESCRIBE	UNIT	MAT	LAB-COST	REMARK
DOORS&WINDOWS	08208.16	TEAK WOOD DOOR (OUT) .7/2.0 H.	EACH	645	0.00	
DOORS&WINDOWS	08208.17	TEAK WOOD DOOR (OUT) .7/2.1 H.	EACH	670	0.00	
DOORS&WINDOWS	08208.18	TEAK WOOD DOOR (OUT) .8/1.8 H.	EACH	660	0.00	
DOORS&WINDOWS	08208.19	TEAK WOOD DOOR (OUT) .8/2.0 H.	EACH	700	0.00	
DOORS&WINDOWS	08208.20	TEAK WOOD DOOR (OUT) .8/2.1 H.	EACH	730	0.00	
DOORS&WINDOWS	08208.21	TEAK WOOD DOOR (OUT) .9/2.0 H.	EACH	770	0.00	
DOORS&WINDOWS	08208.22	TEAK WOOD DOOR (OUT) .9/2.1 H.	EACH	795	0.00	
DOORS&WINDOWS	08208.23	TEAK WOOD DOOR (OUT) 1/2.0 H.	EACH	835	0.00	
DOORS&WINDOWS	08208.24	TEAK WOOD DOOR (OUT) 1/2.1 H.	EACH	865	0.00	
DOORS & WINDOWS	08351.01	DULL ROLLING STEEL DOOR	SQ. H.	850	0.00	
DOORS & WINDOWS	08351.02	HOLLOW ROLLING STEEL DOOR	SQ. H.	950	0.00	
DOORS & WINDOWS	08702.03	ALUMINIUM SCREEN DOOR(FOLD)	SQ. H.	250	0.00	
DOORS & WINDOWS	08702.04	ALUMINIUM SCREEN DOOR(SLIDING)	SQ. H.	420	0.00	
DOORS&WINDOWS	08501.01	ALUMINIUM LOUVER .9/1.2, .9/1.2 H	SET	1090	270.00	
DOORS&WINDOWS	08501.02	ALUMINIUM LOUVER 1.8/1.1,1.8/1.1 H	SET	1720	430.00	
DOORS&WINDOWS	08501.03	ALUMINIUM LOUVER 3.6/1.1,3.6/1.1 H	SET	3190	800.00	
DOORS&WINDOWS	08510.01	STEEL VISION LIGHT 1.0/0.5 H.	SET	290	70.00	
DOORS&WINDOWS	08510.02	STEEL VISION LIGHT 2.8/0.5 H.	SET	900	230.00	
DOORS&WINDOWS	08510.03	STEEL VISION LIGHT 0.8/0.5 H.	SET	560	140.00	
DOORS&WINDOWS	08510.04	STEEL VISION LIGHT 2.6/0.5 H.	SET	2100	530.00	OPEN-CLOSING BY GEAR
DOORS&WINDOWS	08510.04	STEEL VISION LIGHT 2.6/0.5 H.	SET	2100	530.00	OPEN BY GEAR+1970 BAHT
DOORS&WINDOWS	08510.04	STEEL SINGLE WINDOW 3.9/1.4 H.	SET	4150	1040.00	OPEN BY GEAR+1970 BAHT
DOORS&WINDOWS	08510.05	STEEL SINGLE WINDOW 3.9/1.6,3.9/1.1	SET	5160	1280.00	OPEN BY GEAR+1970 BAHT
DOORS&WINDOWS	08510.06	STEEL SINGLE WINDOW 2.6/1.6,2.6/1.1	SET	3610	910.00	OPEN BY GEAR+1970 BAHT
DOORS&WINDOWS	08510.07	STEEL DOUBLE WINDOW 3.8/1.4,3.8/1.4	SET	5000	1250.00	OPEN BY GEAR+1970 BAHT
DOORS&WINDOWS	08510.08	STEEL DOUBLE WINDOW 3.8/1.6,3.8/1.1	SET	6040	1510.00	OPEN BY GEAR+1970 BAHT
DOORS&WINDOWS	08510.09	STEEL SINGLE WINDOW 2.6/1.6,2.6/1.1	SET	3610	910.00	OPEN BY GEAR+1970 BAHT
DOORS&WINDOWS	08510.10	STEEL SINGLE WINDOW 2.6/1.4,2.6/1.4	SET	2890	730.00	OPEN BY GEAR+1970 BAHT
DOORS&WINDOWS	08510.11	STEEL LOUVERS 2.8/1.6,2.8/1.1	SET	2380	600.00	
DOORS&WINDOWS	08511.01	STEEL LOUVERS(SPECIAL) 4"	EACH	18.0	0.00	NOT INCLUDE GRATING
DOORS&WINDOWS	08511.02	STEEL LOUVERS(SPECIAL) 4.5"	EACH	20.0	0.00	NOT INCLUDE GRATING
DOORS&WINDOWS	08513	LOUVERS LABOR COST	%	20.0	15.00	OF MAT COST
DOORS&WINDOWS	08521.01	ALUMINIUM LOUVERS(GENERAL)4".4.5"	EACH	11.0	0.00	

TYPE	CODE	DESCRIBE	UNIT	MAT	LAB-COST	REMARK
DOORS&WINDOWS	08521.01	STEEL LOUVERS(HANDLE) 4"	EACH	18.0	0.00	NOT INCLUDE GRATING
DOORS&WINDOWS	08521.02	ALUMINIUM LOUVERS(SPECIAL)4",4.5"	EACH	12.0	0.00	NOT INCLUDE GRATING
DOORS&WINDOWS	08521.02	STEEL LOUVERS(HANDLE) 4.5"	EACH	20.0	0.00	NOT INCLUDE GRATING
DOORS&WINDOWS	08522.01	ALU.SLIDING WINDOW 3.2/1.5,1.6/1.1H	SET	4240	1060.00	
DOORS&WINDOWS	08522.02	ALU.SLIDING WINDOW 3.8/1.5,1.9/1.1H	SET	4680	1170.00	
DOORS&WINDOWS	08522.03	ALU.SLIDING WINDOW 1.2/1.2,1.2/1.2H	SET	1600	400.00	
DOORS&WINDOWS	08522.04	ALU.SLIDING WINDOW 1.8/1.2,1.8/1.2H	SET	1840	460.00	
DOORS&WINDOWS	08522.05	ALU.SLIDING WINDOW 3.2/1.0,1.6/1.0H	SET	2640	660.00	
DOORS&WINDOWS	08522.06	ALU.SLIDING WINDOW 3.8/1.0,1.9/1.0H	SET	3600	900.00	
DOORS&WINDOWS	08522.07	ALU.SLIDING WINDOW 1.2/1.0,1.2/1.0H	SET	1460	360.00	
DOORS&WINDOWS	08522.08	ALU.SLIDING WINDOW 1.3/1.0,1.8/1.0H	SET	1990	200.00	
DOORS&WINDOWS	08523.01	ALU.OPEN WINDOW 0.9/1.8,0.8/1.8 H.	SET	2790	690.00	
DOORS&WINDOWS	08523.02	ALU.OPEN WINDOW 1.6/1.6,1.6/1.6 H.	SET	4180	1050.00	
DOORS&WINDOWS	08523.03	ALU.OPEN WINDOW 1.8/1.5,1.8/1.1 H.	SET	3410	850.00	
DOORS&WINDOWS	08523.04	ALU.OPEN WINDOW 1.8/1.1,1.8/1.1 H.	SET	2410	610.00	
DOORS&WINDOWS	08524.01	ALU.VISION LIGHT 1.8/3.0 H.	SET	3250	810.00	
DOORS&WINDOWS	08524.02	ALU.VISION LIGHT 3.6/1.1 H.	SET	3620	900.00	
DOORS&WINDOWS	08524.03	ALU.VISION LIGHT 0.9/1.2 H.	SET	850	220.00	
DOORS&WINDOWS	08524.03	ALU.VISION LIGHT 0.9/1.2 H.	SET	850	220.00	
DOORS & WINDOWS	08611.01	TEAK V-WINDOW 1.25"/4",.40/1.1 H.	PAIR	200	0.00	
DOORS & WINDOWS	08611.02	TEAK V-WINDOW 1.25"/4",.45/1.1 H.	PAIR	220	0.00	
DOORS & WINDOWS	08611.03	TEAK V-WINDOW 1.25"/4",.60/1.2 H.	PAIR	310	0.00	
DOORS & WINDOWS	08611.04	TEAK V-WINDOW 1.25"/4",.70/1.2 H.	PAIR	330	0.00	
DOORS & WINDOWS	08611.05	TEAK V-WINDOW 1.25"/4",.80/1.2 H.	PAIR	345	0.00	
DOORS & WINDOWS	08611.06	TEAK V-WINDOW 1.25"/4",.90/1.2 H.	PAIR	365	0.00	



TYPE	CODE	DESCRIBE	UNIT	QTY	LAB-COST	REMARK
DOORS & WINDOWS	08612.01	TIMBER Y-WINDOW .40/1.0 H.	PAIR	140	0.00	
DOORS & WINDOWS	08612.02	TIMBER Y-WINDOW .40/1.1 H.	PAIR	150	0.00	
DOORS & WINDOWS	08612.03	TIMBER Y-WINDOW .45/1.1 H.	PAIR	160	0.00	
DOORS & WINDOWS	08613.01	TEAK WINDOW FRAME 1.25"/4", .6/1.1 H	EACH	170	0.00	
DOORS & WINDOWS	08613.02	TEAK WINDOW FRAME 1.25"/4", .7/1.1 H	EACH	180	0.00	
DOORS & WINDOWS	08613.03	TEAK WINDOW FRAME 1.25"/4", .8/1.1 H	EACH	190	0.00	
DOORS & WINDOWS	08613.04	TEAK WINDOW FRAME 1.25"/4", .9/1.1 H	EACH	200	0.00	
DOORS & WINDOWS	08613.04	WINDOW FRAME&ACCESORIE LABOR COST	SQ.M.	0.00	35.00	
DOORS&WINDOWS	08701.01	HANDLE FOR LOUVERS ,STEEL GEAR	SET	60.0	0.00	
DOORS&WINDOWS	08701.02	HANDLE FOR LOUVERS ,BRASS GEAR	SET	100	0.00	
DOORS&WINDOWS	08702.01	DOOR LOCKSETS	SET	250	15.00	
DOORS&WINDOWS	08702.02	MASTER KEY DOOR LOCKSETS	SET	270	15.00	>20 SET USE MASTER KEY
DOORS&WINDOWS	08702.03	DOOR LOCKSETS (REST ROOM)	SET	150	15.00	
DOORS&WINDOWS	08703.01	KEY(INSIDE)	SET	600	15.00	
DOORS&WINDOWS	08704	DOOR CLOSER	SET	830	15.00	
DOORS&WINDOWS	08705.01	ALLOY HINGE,NILON RING 4"/3"	EACH	13.0	0.00	
DOORS&WINDOWS	08705.02	ALLOY HINGE,NILON RING 4"/4"	EACH	15.0	0.00	
DOORS&WINDOWS	08705.03	ALLOY HINGE,NILON RING 4"/5"	EACH	26.0	0.00	
DOORS&WINDOWS	08705.04	INSIDE FLOOR HINGE	SET	310	60.00	
DOORS&WINDOWS	08705.05	INSIDE FLOOR HINGE	SET	2750	60.00	
DOORS&WINDOWS	08705.06	HINGE(ANGLE ADJUSTABLE) 8"	SET	32.0	0.00	
DOORS&WINDOWS	08705.07	HINGE(ANGLE ADJUSTABLE) 12"	SET	40.0	0.00	
DOORS&WINDOWS	08705.08	HINGE(ANGLE ADJUSTABLE) 14"	SET	46.0	0.00	
DOORS&WINDOWS	08705.09	HINGE(ANGLE ADJUSTABLE) 16"	SET	52.0	0.00	
DOORS&WINDOWS	08705.10	HINGE(ANGLE ADJUSTABLE) 20"	SET	70.0	0.00	
DOORS&WINDOWS	08706.01	ALLOY ALUMINIUM BOLT 4"	SET	19.0	0.00	
DOORS&WINDOWS	08706.02	ALLOY ALUMINIUM 2GLT 6"	SET	20.0	0.00	
DOORS&WINDOWS	08707.01	BRONZE DOOR HANDLE 5"	EACH	11.0	0.00	
DOORS&WINDOWS	08707.02	BRONZE DOOR HANDLE 6"	EACH	13.0	0.00	
DOORS&WINDOWS	08811.01	PLATE GLASS 3 MM.THICK	SQ.F.	13.0	3.00	A BIGEST SIZE=1.2/2.5 H.
DOORS&WINDOWS	08811.02	PLATE GLASS 5 MM.THICK	SQ.F.	27.0	3.00	A BIGEST SIZE=1.2/2.4 H.
DOORS&WINDOWS	08811.03	PLATE GLASS 6 MM.THICK	SQ.F.	31.0	3.00	A BIGEST SIZE=2.1/2.4 H.
DOORS&WINDOWS	08812.01	TEMPER GLASS 4.0"/.75 H,5MM.THICK	EACH	31.0	0.00	
DOORS&WINDOWS	08813.02	TEMPER GLASS 4.0"/.90 H,5MM.THICK	EACH	38.0	0.00	

TYPE	CODE	DESCRIBE	UNIT	MAT	LAB-COST	REMARK
DOORS&WINDOWS	08813.03	TEMPER GLASS 4.5"/.75 H, 5MM. THICK	EACH	36.0	0.00	
DOORS&WINDOWS	08813.04	TEMPER GLASS 4.5"/.90 H, 5MM. THICK	EACH	43.0	0.00	
DOORS&WINDOWS	08813.05	TEMPER GLASS 4.0"/.75 H, 6MM. THICK	EACH	37.0	0.00	
DOORS&WINDOWS	08813.06	TEMPER GLASS 4.0"/.90 H, 6MM. THICK	EACH	40.0	0.00	
DOORS&WINDOWS	08813.07	TEMPER GLASS 4.5"/.75 H, 6MM. THICK	EACH	42.0	0.00	
DOORS&WINDOWS	08813.08	TEMPER GLASS 4.5"/.90 H, 6MM. THICK	EACH	50.0	0.00	
DOORS&WINDOWS	08814.01	WIRED GLASS 4.0"/.75 H, 5MM. THICK	EACH	20.0	0.00	
DOORS&WINDOWS	08814.02	WIRED GLASS 4.0"/.90 H, 5MM. THICK	EACH	24.0	0.00	
DOORS&WINDOWS	08814.03	WIRED GLASS 4.5"/.75 H, 5MM. THICK	EACH	23.0	0.00	
DOORS&WINDOWS	08814.04	WIRED GLASS 4.5"/.90 H, 5MM. THICK	EACH	27.0	0.00	
DOORS&WINDOWS	08815.01	GLASS 4.0"/.75 H, 5MM. THICK	EACH	20.0	0.00	
DOORS&WINDOWS	08815.02	GLASS 4.0"/.90 H, 5MM. THICK	EACH	24.0	0.00	
DOORS&WINDOWS	08815.03	GLASS 4.5"/.75 H, 5MM. THICK	EACH	23.0	0.00	
DOORS&WINDOWS	08815.04	GLASS 4.5"/.90 H, 5MM. THICK	EACH	27.0	0.00	
DOORS&WINDOWS	08815.06	GLASS 4.0"/.75 H, 6MM. THICK	EACH	28.0	0.00	
DOORS&WINDOWS	08815.07	GLASS 4.0"/.90 H, 6MM. THICK	EACH	33.0	0.00	
DOORS&WINDOWS	08815.08	GLASS 4.5"/.75 H, 6MM. THICK	EACH	31.0	0.00	
DOORS&WINDOWS	08815.09	GLASS 4.5"/.90 H, 6MM. THICK	EACH	38.0	0.00	
DOORS&WINDOWS	08822.01	LAMINATE GLASS 4.0"/.75 H, 5MM. THICK	EACH	19.0	0.00	
DOORS&WINDOWS	08822.02	LAMINATE GLASS 4.0"/.90 H, 5MM. THICK	EACH	23.0	0.00	
DOORS&WINDOWS	08822.03	LAMINATE GLASS 4.5"/.75 H, 5MM. THICK	EACH	22.0	0.00	
DOORS&WINDOWS	08822.04	LAMINATE GLASS 4.5"/.90 H, 5MM. THICK	EACH	26.0	0.00	



TYPE	CODE	DESCRIBE	UNIT	MAT	LAB-COST	REMARK
DOORS&WINDOWS	08822.05	LAMINATE GLASS 4.0"/.75 H, 6MM. THICK	EACH	26.0	0.00	
DOORS&WINDOWS	08822.06	LAMINATE GLASS 4.0"/.90 H, 6MM. THICK	EACH	31.0	0.00	
DOORS&WINDOWS	08822.07	LAMINATE GLASS 4.5"/.75 H, 6MM. THICK	EACH	29.0	0.00	
DOORS&WINDOWS	08822.08	LAMINATE GLASS 4.5"/.90 H, 6MM. THICK	EACH	35.0	0.00	
FINISH	09901	INDOOR&OUTDOOR PAINT-EMULSION	SQ.M.	18.0	10.00	
FINISH	09902	OUTDOOR PAINT-EMULSION	SQ.M.	21.0	10.00	
FINISH	09903	INDOOR PAINT-EMULSION	SQ.M.	15.0	10.00	
FINISH	09904	EPOXY PAINT	SQ.M.	60.0	15.00	
FINISH	09905	PAINT ENAMELS	SQ.M.	23.0	15.00	
FINISH	09906	CHLORINATED RUBBER PAINT	SQ.M.	39.0	15.00	
FINISH	09907.01	ROAD PAINT	SQ.M.	32.0	10.00	
FINISH	09907.02	ROAD PAINT(ZINC SULFIDE)	SQ.M.	34.0	10.00	
SPECIALTIES	10800.01	WATER CLOSET TANK	SET	1580	100.00	TF-2106, Q-177
SPECIALTIES	10800.02	WATER CLOSET FLUSH VALVE	SET	1680	100.00	TF-3252, Q-157
SPECIALTIES	10801.01	SQUAT	SET	520	40.00	TF-101P, Q-201
SPECIALTIES	10801.02	SQUAT-TANK	SET	1430	60.00	TF-100FP, Q-202
SPECIALTIES	10801.03	SQUAT-FLUSH VALVE	SET	1465	60.00	TF-100FP, Q-202
SPECIALTIES	10801.04	SQUAT WITHOUT BASEMENT	SET	180	40.00	TF-100, Q-204
SPECIALTIES	10802.01	URINAL	SET	1000	100.00	TF-412, Q-304
SPECIALTIES	10802.02	CORNER-URINAL	SET	1205	100.00	TF-412, Q-305
SPECIALTIES	10803.01	WASH BASINS 16"/20"	SET	550	70.00	TF-911, Q-001
SPECIALTIES	10803.02	WASH BASINS WITH COUNTER 19"/22"	SET	2015	70.00	TF-493, Q-005
SPECIALTIES	10804	URINAL SHELTER	SET	405	40.00	TF-493, Q-006
SPECIALTIES	10805	SCRUB SINK	SET	7940	200.00	'S WATA WARD, TOTO
SPECIALTIES	10806	SLOP SINK FOR BED PAN	SET	5410	100.00	TF-2222, TOTO EQUIPMENT
SPECIALTIES	10807	BATHUB-TOTO	SET	****	200.00	BH-25, 'S WATA WARD
SPECIALTIES	10809	TOILET PAPER HOLDER	SET	50.0	25.00	TF-9002, Q-815
SPECIALTIES	10810	SOAP BOX	SET	50.0	25.00	TF-9000, Q-805
SPECIALTIES	10811	BATH ROPE HOOK	EACH	20.0	6.00	
SPECIALTIES	10812	BATH TOWEL RAIL	SET	95.0	7.00	TF-9085, Q-811-2
SPECIALTIES	10813	PLASTIC SHELF	SET	80.0	7.00	TF-9075, Q-813
SPECIALTIES	10814.01	SHOWER	SET	120	20.00	
SPECIALTIES	10814.02	FLEXIBLE SHOWER	SET	170	10.00	
SPECIALTIES	10815	RINSING SHOWER	SET	120	10.00	
SPECIALTIES	10816	LIQUID SOAP CONTAINER	SET	410	7.00	TS-125S, TS-126S
FURNISHINGS	12301	CLOTHES CABINET 2 H. HIGH	H.	2800	0.00	
FURNISHINGS	12302.01	LOW CABINET WITH FRONT	H.	2310	0.00	
FURNISHINGS	12302.02	LOW CABINET WITH GLASS	H.	2825	0.00	

TYPE	CODE	DESCRIBE	UNIT	MAT	LAB-COST	REMARK
FURNISHINGS	12303	HANGED CABINET	M.	1650	0.00	
FURNISHINGS	123043	HIGH CABINET	M.	4200	0.00	
FURNISHINGS	12501	ALUMINIUM BLIND	SQ. F.	45.0	0.00	2" WIDE
FURNISHINGS	12601.01	OFFICE TABLE&CHAIR CLASS 1-2	SET	1200	0.00	
FURNISHINGS	12601.02	OFFICE TABLE&CHAIR CLASS 3-6	SET	1900	0.00	
FURNISHINGS	12601.03	OFFICE TABLE&CHAIR CLASS 7-8	SET	3000	0.00	
FURNISHINGS	12601.04	OFFICE TABLE&CHAIR CLASS 9-10	SET	4300	0.00	
FURNISHINGS	12601.05	OFFICE TABLE&CHAIR CLASS 11	SET	5000	0.00	
FURNISHINGS	126010	DRAWING CHAIR	EACH	300	0.00	
FURNISHINGS	12602	TYPING TABLE&CHAIR	SET	1200	0.00	
FURNISHINGS	12603.01	MEETING TABLE& 8 CHAIRS	SET	5000	0.00	
FURNISHINGS	12603.02	KNOCKDOWN MEETING TABLE& 12 CHAIRS	SET	****	0.00	
FURNISHINGS	12604	TELEPHONE TABLE	EACH	200	0.00	
FURNISHINGS	12605	CALCULATOR TABLE	EACH	400	0.00	
FURNISHINGS	12606.01	CHAIR CLASS 1-2	EACH	120	0.00	
FURNISHINGS	12606.02	CHAIR CLASS 3-6	EACH	400	0.00	
FURNISHINGS	12606.03	CHAIR CLASS 7-8	EACH	900	0.00	
FURNISHINGS	12606.04	CHAIR CLASS 9-10	EACH	1400	0.00	
FURNISHINGS	12606.05	CHAIR CLASS 11	EACH	2000	0.00	
FURNISHINGS	12607	LECTURE CHAIR	EACH	300	0.00	
FURNISHINGS	12608	CHAIR-FIBERGLASS	EACH	300	0.00	
FURNISHINGS	12609	FOLDING CHAIR-STEEL	EACH	120	0.00	
FURNISHINGS	12611	FLAT CHAIR-WOOD	M.	600	0.00	
FURNISHINGS	12612.01	COUNTER	M.	3150	0.00	
FURNISHINGS	12612.02	COUNTER WITH GLASS	M.	4400	0.00	
MECHANICAL	15061.01	SOIL(PIPE CAST IRON)TYPE "H" D=2"	ROD	98.0	0.00	1.80 M./ROD
MECHANICAL	15061.02	SOIL(PIPE CAST IRON)TYPE "H" D=3"	ROD	137	0.00	1.80 M./ROD
MECHANICAL	15061.03	SOIL(PIPE CAST IRON)TYPE "H" D=4"	ROD	165	0.00	1.80 M./ROD
MECHANICAL	15061.04	SOIL(PIPE CAST IRON)TYPE "H" D=6"	ROD	260	0.00	1.80 M./ROD
MECHANICAL	15062.01	PIPE-ASBESTOS CEMENT D=100 MM.	ROD	340	0.00	4.00 M./ROD
MECHANICAL	15062.02	PIPE-ASBESTOS CEMENT D=150 MM.	ROD	572	0.00	4.00 M./ROD
MECHANICAL	15062.03	PIPE-ASBESTOS CEMENT D=200 MM.	ROD	1040	0.00	4.00 M./ROD
MECHANICAL	15062.04	PIPE-ASBESTOS CEMENT D=250 MM.	ROD	1436	0.00	4.00 M./ROD
MECHANICAL	15063.01	SEWAGE-ASBESTOS CEMENT D=100 MM.	ROD	120	0.00	4.00 M./ROD
MECHANICAL	15063.02	SEWAGE-ASBESTOS CEMENT D=150 MM.	ROD	205	0.00	4.00 M./ROD
MECHANICAL	15063.03	SEWAGE-ASBESTOS CEMENT D=200 MM.	ROD	310	0.00	4.00 M./ROD

TYPE	CODE	DESCRIBE	UNIT	MAT	LAB-COST	REMARK
MECHANICAL	15064.01	SEWAGE-ASBESTOS CE.GRADE A,D=90 MM	ROD	66.0	0.00	3.00 H./ROD
MECHANICAL	15064.02	SEWAGE-ASBESTOS CE.GRADE A,D=100 MM	ROD	113	0.00	3.00 H./ROD
MECHANICAL	15064.03	SEWAGE-ASBESTOS CE.GRADE A,D=150 MM	ROD	165	0.00	3.00 H./ROD
MECHANICAL	15064.04	SEWAGE-ASBESTOS CE.GRADE A,D=200 MM	ROD	224	0.00	3.00 H./ROD
MECHANICAL	15065.01	SEWAGE-NONREINFORCED CON. D=0.30 M.	ROD	90.0	0.00	1.00 H./ROD
MECHANICAL	15065.02	SEWAGE-NONREINFORCED CON. D=0.40 M.	ROD	125	0.00	1.00 H./ROD
MECHANICAL	15065.03	SEWAGE-NONREINFORCED CON. D=0.50 M.	ROD	150	0.00	1.00 H./ROD
MECHANICAL	15065.04	SEWAGE-NONREINFORCED CON. D=0.60 M.	ROD	185	0.00	1.00 H./ROD
MECHANICAL	15065.05	SEWAGE-NONREINFORCED CON. D=0.80 M.	ROD	300	0.00	1.00 H./ROD
MECHANICAL	15065.06	SEWAGE-NONREINFORCED CON. D=1.00 M.	ROD	485	0.00	1.00 H./ROD
MECHANICAL	15065.07	SEWAGE-NONREINFORCED CON. D=1.20 M.	ROD	650	0.00	1.00 H./ROD
MECHANICAL	15066.01	SEWAGE-REINFORCED CON.GRADE 3 D=.3M	ROD	140	0.00	1.00 H./ROD
MECHANICAL	15066.02	SEWAGE-REINFORCED CON.GRADE 3 D=.4M	ROD	190	0.00	1.00 H./ROD
MECHANICAL	15066.03	SEWAGE-REINFORCED CON.GRADE 3 D=.5M	ROD	230	0.00	1.00 H./ROD
MECHANICAL	15066.04	SEWAGE-REINFORCED CON.GRADE 3 D=.6M	ROD	275	0.00	1.00 H./ROD
MECHANICAL	15066.05	SEWAGE-REINFORCED CON.GRADE 3 D=.8M	ROD	450	0.00	1.00 H./ROD
MECHANICAL	15066.06	SEWAGE-REINFORCED CON.GRADE 3 D=1 M	ROD	700	0.00	1.00 H./ROD
MECHANICAL	15066.07	SEWAGE-REINFORCED CON.GRADE 3 D=1.2	ROD	925	0.00	1.00 H./ROD
MECHANICAL	15067.01	PIPE-G.S.(THICK) D=3/8"	EACH	0.00	0.00	
MECHANICAL	15067.02	PIPE-G.S.(THICK) D=1/2"	EACH	115	0.00	
MECHANICAL	15067.03	PIPE-G.S.(THICK) D=3/4"	EACH	147	0.00	
MECHANICAL	15067.04	PIPE-G.S.(THICK) D=1"	EACH	212	0.00	
MECHANICAL	15067.05	PIPE-G.S.(THICK) D=1.25"	EACH	270	0.00	
MECHANICAL	15067.06	PIPE-G.S.(THICK) D=1.5"	EACH	310	0.00	
MECHANICAL	15067.07	PIPE-G.S.(THICK) D=2"	EACH	437	0.00	

TYPE	CODE	DESCRIBE	UNIT	MAT	LAB-COST	REMARK
MECHANICAL	15067.08	PIPE-G.S.(THICK) 0=2.5"	EACH	565	0.00	
MECHANICAL	15067.09	PIPE-G.S.(THICK) 0=3"	EACH	735	0.00	
MECHANICAL	15067.10	PIPE-G.S.(THICK) 0=4"	EACH	1060	0.00	
MECHANICAL	15067.11	PIPE-G.S.(THICK) 0=5"	EACH	1447	0.00	
MECHANICAL	15067.12	PIPE-G.S.(THICK) 0=6"	EACH	1733	0.00	
MECHANICAL	15068.01	PIPE-G.S.(THIN) 0=3/8"	EACH	0.00	0.00	
MECHANICAL	15068.02	PIPE-G.S.(THIN) 0=1/2"	EACH	94.0	0.00	
MECHANICAL	15068.03	PIPE-G.S.(THIN) 0=3/4"	EACH	126	0.00	
MECHANICAL	15068.04	PIPE-G.S.(THIN) 0=1"	EACH	160	0.00	
MECHANICAL	15068.05	PIPE-G.S.(THIN) 0=1.25"	EACH	205	0.00	
MECHANICAL	15068.06	PIPE-G.S.(THIN) 0=1.5"	EACH	252	0.00	
MECHANICAL	15068.07	PIPE-G.S.(THIN) 0=2"	EACH	320	0.00	
MECHANICAL	15068.08	PIPE-G.S.(THIN) 0=2.5"	EACH	460	0.00	
MECHANICAL	15068.09	PIPE-G.S.(THIN) 0=3"	EACH	540	0.00	
MECHANICAL	15068.10	PIPE-G.S.(THIN) 0=4"	EACH	790	0.00	
MECHANICAL	15068.11	PIPE-G.S.(THIN) 0=5"	EACH	1302	0.00	
MECHANICAL	15068.12	PIPE-G.S.(THIN) 0=6"	EACH	1573	0.00	
MECHANICAL	15069.01	PIPE-PB. 0=3/8"	EACH	0.00	0.00	
MECHANICAL	15069.02	PIPE-PB. 0=1/2"	EACH	16.0	0.00	
MECHANICAL	15069.03	PIPE-PB. 0=3/4"	EACH	24.0	0.00	
MECHANICAL	15069.04	PIPE-PB. 0=1"	EACH	41.0	0.00	
MECHANICAL	15069.05	PIPE-PB. 0=1.25"	EACH	0.00	0.00	
MECHANICAL	15069.06	PIPE-PB. 0=1.5"	EACH	83.0	0.00	
MECHANICAL	15069.07	PIPE-PB. 0=2"	EACH	127	0.00	
MECHANICAL	15069.08	PIPE-PB. 0=2.5"	EACH	216	0.00	
MECHANICAL	15069.09	PIPE-PB. 0=3"	EACH	325	0.00	
MECHANICAL	15069.10	PIPE-PB. 0=4"	EACH	435	0.00	
MECHANICAL	15069.11	PIPE-PB. 0=5"	EACH	0.00	0.00	
MECHANICAL	15069.12	PIPE-PB. 0=6"	EACH	870	0.00	
MECHANICAL	15070.01	PIPE-P.V.C.(CLASS 5) 0=3/8"	EACH	16.0	0.00	
MECHANICAL	15070.02	PIPE-P.V.C.(CLASS 5) 0=1/2"	EACH	21.0	0.00	
MECHANICAL	15070.03	PIPE-P.V.C.(CLASS 5) 0=3/4"	EACH	25.0	0.00	
MECHANICAL	15070.04	PIPE-P.V.C.(CLASS 5) 0=1"	EACH	36.0	0.00	
MECHANICAL	15070.05	PIPE-P.V.C.(CLASS 5) 0=1.25"	EACH	50.0	0.00	
MECHANICAL	15070.06	PIPE-P.V.C.(CLASS 5) 0=1.5"	EACH	61.0	0.00	
MECHANICAL	15070.07	PIPE-P.V.C.(CLASS 5) 0=2"	EACH	90.0	0.00	
MECHANICAL	15070.08	PIPE-P.V.C.(CLASS 5) 0=2.5"	EACH	145	0.00	
MECHANICAL	15070.09	PIPE-P.V.C.(CLASS 5) 0=3"	EACH	196	0.00	
MECHANICAL	15070.10	PIPE-P.V.C.(CLASS 5) 0=4"	EACH	314	0.00	
MECHANICAL	15070.11	PIPE-P.V.C.(CLASS 5) 0=5"	EACH	480	0.00	
MECHANICAL	15070.12	PIPE-P.V.C.(CLASS 5) 0=6"	EACH	667	0.00	
MECHANICAL	15071.01	PIPE-P.V.C.(CLASS 8.5) 0=3/8"	EACH	27.0	0.00	
MECHANICAL	15071.02	PIPE-P.V.C.(CLASS 8.5) 0=1/2"	EACH	32.0	0.00	



TYPE	CODE	DESCRIBE	UNIT	HAT	LAB-COST	REMARK
MECHANICAL	15071.03	PIPE-P.V.C.(CLASS 8.5) 0=3/4"	EACH	40.0	0.00	
MECHANICAL	15071.04	PIPE-P.V.C.(CLASS 8.5) 0=1"	EACH	53.0	0.00	
MECHANICAL	15071.05	PIPE-P.V.C.(CLASS 8.5) 0=1.25"	EACH	65.0	0.00	
MECHANICAL	15071.06	PIPE-P.V.C.(CLASS 8.5) 0=1.5"	EACH	86.0	0.00	
MECHANICAL	15071.07	PIPE-P.V.C.(CLASS 8.5) 0=2"	EACH	135	0.00	
MECHANICAL	15071.08	PIPE-P.V.C.(CLASS 8.5) 0=2.5"	EACH	211	0.00	
MECHANICAL	15071.09	PIPE-P.V.C.(CLASS 8.5) 0=3"	EACH	287	0.00	
MECHANICAL	15071.10	PIPE-P.V.C.(CLASS 8.5) 0=4"	EACH	465	0.00	
MECHANICAL	15071.11	PIPE-P.V.C.(CLASS 8.5) 0=5"	EACH	700	0.00	
MECHANICAL	15071.12	PIPE-P.V.C.(CLASS 8.5) 0=6"	EACH	1000	0.00	
MECHANICAL	15072.01	PIPE-P.V.C.(CLASS 13.5) 0=3/8"	EACH	29.0	0.00	
MECHANICAL	15072.02	PIPE-P.V.C.(CLASS 13.5) 0=1/2"	EACH	39.0	0.00	
MECHANICAL	15072.03	PIPE-P.V.C.(CLASS 13.5) 0=3/4"	EACH	46.0	0.00	
MECHANICAL	15072.04	PIPE-P.V.C.(CLASS 13.5) 0=1"	EACH	76.0	0.00	
MECHANICAL	15072.05	PIPE-P.V.C.(CLASS 13.5) 0=1.25"	EACH	99.0	0.00	
MECHANICAL	15072.06	PIPE-P.V.C.(CLASS 13.5) 0=1.5"	EACH	127	0.00	
MECHANICAL	15072.07	PIPE-P.V.C.(CLASS 13.5) 0=2"	EACH	195	0.00	
MECHANICAL	15072.08	PIPE-P.V.C.(CLASS 13.5) 0=2.5"	EACH	315	0.00	
MECHANICAL	15072.09	PIPE-P.V.C.(CLASS 13.5) 0=3"	EACH	435	0.00	
MECHANICAL	15072.10	PIPE-P.V.C.(CLASS 13.5) 0=4"	EACH	705	0.00	
MECHANICAL	15072.11	PIPE-P.V.C.(CLASS 13.5) 0=5"	EACH	1258	0.00	
MECHANICAL	15072.12	PIPE-P.V.C.(CLASS 13.5) 0=6"	EACH	1514	0.00	
MECHANICAL	15072.12	PIPE-P.V.C.(CLASS 13.5) 0=6"	EACH	1514	0.00	
MECHANICAL	15080.01	JOINT CONNECTOR&RUBBER RING 0=100MM	SET	95.0	0.00	
MECHANICAL	15080.02	JOINT CONNECTOR&RUBBER RING 0=150MM	SET	143	0.00	
MECHANICAL	15080.03	JOINT CONNECTOR&RUBBER RING 0=200MM	SET	203	0.00	
MECHANICAL	15080.04	JOINT CONNECTOR&RUBBER RING 0=250MM	SET	282	0.00	
MECHANICAL	15081.01	JOINT CONNECTOR&RUBBER RING 0=100MM	SET	26.0	0.00	
MECHANICAL	15081.02	JOINT CONNECTOR&RUBBER RING 0=150MM	SET	37.0	0.00	
MECHANICAL	15081.03	JOINT CONNECTOR&RUBBER RING 0=200MM	SET	55.0	0.00	
MECHANICAL	15082.01	FLEXIBLE CONECTOR 0=2"	SET	1950	0.00	
MECHANICAL	15082.02	FLEXIBLE CONECTOR 0=3"	SET	3100	0.00	
MECHANICAL	15082.03	FLEXIBLE CONECTOR 0=4"	SET	3530	0.00	
MECHANICAL	15082.04	FLEXIBLE CONECTOR 0=6"	SET	5600	0.00	
MECHANICAL	15083.01	CLEANOUTS BRASS 0=2"	SET	50.0	10.00	

TYPE	CODE	DESCRIBE	UNIT	MAT	LAB-COST	REMARK
MECHANICAL	15083.02	CLEANOUTS BRASS D=2.5"	SET	55.0	10.00	
MECHANICAL	15083.03	CLEANOUTS BRASS D=3"	SET	60.0	10.00	
MECHANICAL	15083.04	CLEANOUTS BRASS D=4"	SET	75.0	10.00	
MECHANICAL	15083.05	CLEANOUTS BRASS D=6"	SET	90.0	10.00	
MECHANICAL	15084.01	P-TRAP	SET	125	0.00	BRIGHT 211
MECHANICAL	15084.02	P-TRAP URINAL	SET	110	0.00	BRIGHT 421
MECHANICAL	15085.01	SHOWER HOSE-CROMIUM	SET	27.0	0.00	BRIGHT 2512
MECHANICAL	15085.02	SHOWER HOSE-FIBERGLASS	SET	22.0	0.00	BRIGHT 2312
MECHANICAL	15101.01	VALVE BRASS D=1/2"	SET	26.0	0.00	PRESSURE 125 PSI.
MECHANICAL	15101.02	VALVE BRASS D=3/4"	SET	35.0	0.00	PRESSURE 125 PSI.
MECHANICAL	15101.03	VALVE BRASS D=1"	SET	45.0	0.00	PRESSURE 125 PSI.
MECHANICAL	15101.04	VALVE BRASS D=1.5"	SET	80.0	0.00	PRESSURE 125 PSI.
MECHANICAL	15101.05	VALVE BRASS D=2"	SET	125	0.00	PRESSURE 125 PSI.
MECHANICAL	15101.06	VALVE BRASS D=2.5"	SET	235	0.00	PRESSURE 125 PSI.
MECHANICAL	15101.07	VALVE BRASS D=3"	SET	315	0.00	PRESSURE 125 PSI.
MECHANICAL	15101.08	VALVE BRASS D=4"	SET	595	0.00	PRESSURE 125 PSI.
MECHANICAL	15102.01	VALVE BRASS (IMPORT) D=1/2"	SET	125	0.00	
MECHANICAL	15102.02	VALVE BRASS (IMPORT) D=3/4"	SET	156	0.00	
MECHANICAL	15102.03	VALVE BRASS (IMPORT) D=1"	SET	220	0.00	
MECHANICAL	15102.04	VALVE BRASS (IMPORT) D=1.5"	SET	390	0.00	
MECHANICAL	15102.05	VALVE BRASS (IMPORT) D=2"	SET	575	0.00	
MECHANICAL	15102.06	VALVE BRASS (IMPORT) D=2.5"	SET	1000	0.00	
MECHANICAL	15102.07	VALVE BRASS (IMPORT) D=3"	SET	1450	0.00	
MECHANICAL	15102.08	VALVE BRASS (IMPORT) D=4"	SET	3400	0.00	
MECHANICAL	15103.01	BALL VALVE (IMPORT) D=1/2"	SET	210	0.00	
MECHANICAL	15103.02	BALL VALVE (IMPORT) D=3/4"	SET	268	0.00	
MECHANICAL	15103.03	BALL VALVE (IMPORT) D=1"	SET	368	0.00	
MECHANICAL	15103.04	BALL VALVE (IMPORT) D=1.25"	SET	495	0.00	
MECHANICAL	15103.05	BALL VALVE (IMPORT) D=1.5"	SET	665	0.00	
MECHANICAL	15103.06	BALL VALVE (IMPORT) D=2"	SET	1090	0.00	
MECHANICAL	15104.01	VALVE CAST IRON D=4"	SET	2090	0.00	PRESSURE 125 PSI.
MECHANICAL	15104.02	VALVE CAST IRON D=6"	SET	3380	0.00	PRESSURE 125 PSI.
MECHANICAL	15104.03	VALVE CAST IRON D=8"	SET	5580	0.00	PRESSURE 125 PSI.
MECHANICAL	15105.01	COCK-BRASS	SET	35.5	8.00	
MECHANICAL	15105.02	SWINGING SINK TRAP	SET	115	8.00	
MECHANICAL	15105.03	LEVEL SINK TRAP	SET	110	8.00	
MECHANICAL	15105.04	WASH BASIN COCK	SET	70.0	0.00	BRIGHT 520
MECHANICAL	15106.01	URINAL FLUSH VALVE	SET	550	0.00	
MECHANICAL	15106.02	WATER CLOSET FLUSH VALVE	SET	800	0.00	
MECHANICAL	15107	STOP VALVE L=12"	SET	90.0	0.00	BRIGHT A45
MECHANICAL	15121.01	CHECK VALVE BRASS D=2"	SET	160	0.00	PRESSURE 125 PSI.
MECHANICAL	15121.02	CHECK VALVE BRASS D=2.5"	SET	255	0.00	PRESSURE 125 PSI.
MECHANICAL	15121.03	CHECK VALVE BRASS D=3"	SET	290	0.00	PRESSURE 125 PSI.



TYPE	CODE	DESCRIBE	UNIT	MAT	LAB-COST	REMARK
MECHANICAL	15121.04	CHECK VALVE BRASS D=4"	SET	580	0.00	PRESSURE 125 PSI.
MECHANICAL	15122.01	CHECK VALVE BRASS (IMPORT) D=2"	SET	790	0.00	PRESSURE 125 PSI.
MECHANICAL	15122.02	CHECK VALVE BRASS (IMPORT) D=2.5"	SET	1260	0.00	PRESSURE 125 PSI.
MECHANICAL	15122.03	CHECK VALVE BRASS (IMPORT) D=3"	SET	1600	0.00	PRESSURE 125 PSI.
MECHANICAL	15122.04	CHECK VALVE BRASS (IMPORT) D=4"	SET	3800	0.00	PRESSURE 125 PSI.
MECHANICAL	15123.01	CHECK VALVE CAST IRON D=4"	SET	1980	0.00	
MECHANICAL	15123.02	CHECK VALVE CAST IRON D=6"	SET	3170	0.00	
MECHANICAL	15123.03	CHECK VALVE CAST IRON D=8"	SET	6110	0.00	
MECHANICAL	15124.01	FLOAT VALVE D=1"	SET	209	20.00	
MECHANICAL	15124.02	FLOAT VALVE D=2"	SET	469	30.00	
MECHANICAL	15124.03	FLOAT VALVE D=3"	SET	1933	40.00	
MECHANICAL	15124.04	FLOAT VALVE D=4"	SET	3349	50.00	
MECHANICAL	15125	FLOAT BALL-P.V.C.&SWITCH	SET	450	100.00	
MECHANICAL	15141.01	CENTRIFUGAL PUMP(BENZENE)450 L/MIN.	EACH	6400	0.00	H=9 M.,D=2"
MECHANICAL	15141.02	CENTRIFUGAL PUMP(BENZENE)1130 L/MIN	EACH	****	0.00	H=9 M.,D=3"
MECHANICAL	15142.01	CENTRIFUGAL PUMP(DIESEL)1750 L/MIN	EACH	****	0.00	H=13.5 M.,D=4"
MECHANICAL	15143.01	CENTRIFUGAL PUMP(MOTOR) 450 L/MIN	EACH	****	0.00	H= 9 M.,D=2"
MECHANICAL	15143.02	CENTRIFUGAL PUMP(MOTOR)1130 L/MIN	EACH	****	0.00	H= 13.5 M.,D=3"
MECHANICAL	15143.03	CENTRIFUGAL PUMP(MOTOR)1500 L/MIN	EACH	****	0.00	H= 13.5 M.,D=4"
MECHANICAL	15143.04	CENTRIFUGAL PUMP(MOTOR)3800 L/MIN	EACH	****	0.00	H= 13.5 M.,D=6"
MECHANICAL	15171.01	WATER METER(G.L.C.) 13 D=1/2"	EACH	580	0.00	
MECHANICAL	15171.02	WATER METER(G.L.C.) 20 D=3/4"	EACH	745	0.00	
MECHANICAL	15171.03	WATER METER(G.L.C.) 25 D=1"	EACH	1170	0.00	
MECHANICAL	15171.04	WATER METER(G.L.C.) 40 D=1.5"	EACH	2570	0.00	
MECHANICAL	15172.01	WATER METER(V.V.D.F.) D=2"	EACH	4660	0.00	
MECHANICAL	15172.02	WATER METER(V.V.D.F.) D=2.5"	EACH	6050	0.00	
MECHANICAL	15172.03	WATER METER(V.V.D.F.) D=3"	EACH	8250	0.00	
MECHANICAL	15172.04	WATER METER(V.V.D.F.) D=4"	EACH	9570	0.00	
MECHANICAL	15172.05	WATER METER(V.V.D.F.) D=6"	EACH	****	0.00	
MECHANICAL	15173	PRESSURE GAGE 125 PSI	SET	170	0.50	
MECHANICAL	15220.01	PIPING LABOUR COST-INDOOR	%	0.00	30.00	OF MATERIAL COST
MECHANICAL	15220.02	PIPING LABOUR COST-OUTDOOR	%	0.00	10.00	OF MATERIAL COST

TYPE	CODE	DESCRIPTION	UNIT	MAT	LAB-COST	REMARK
MECHANICAL	15240.01	WATER TANK-FIBERGLASS	%	0:00	10.00	OF MATERIAL COST
MECHANICAL	15240.01	WATER TANK-FIBERGLASS(CY.) 500 L.	TANK	2640	0.00	
MECHANICAL	15240.02	WATER TANK-FIBERGLASS(CY.) 1000 L.	TANK	3325	0.00	
MECHANICAL	15240.03	WATER TANK-FIBERGLASS(CY.) 2500 L.	TANK	7125	0.00	
MECHANICAL	15241.01	WATER TANK-FIBERGLASS(CIR.) 1000 L.	TANK	4275	0.00	
MECHANICAL	15241.02	WATER TANK-FIBERGLASS(CIR.) 2600 L.	TANK	****	0.00	
MECHANICAL	15242.01	WATER TANK-FIBERGLASS(APP.) 2500 L.	TANK	7600	0.00	
MECHANICAL	15242.02	WATER TANK-FIBERGLASS(APP.) 3500 L.	TANK	****	0.00	
MECHANICAL	15243.01	WATER TANK-GAL. 1.25/1.25/1.25 ,1.2	EACH	3800	0.00	
MECHANICAL	15243.02	WATER TANK-GAL. 1.25/1.25/1.25 ,1.4	EACH	4200	0.00	
MECHANICAL	15243.03	WATER TANK-GAL. .93/.83/.83 ,1.4 MM	EACH	3000	0.00	
MECHANICAL	15244.01	WATERTANK-STANLESS STEEL 500 L.	TANK	4000	0.00	
MECHANICAL	15244.02	WATERTANK-STANLESS STEEL 1100 L.	TANK	5300	0.00	
MECHANICAL	15244.03	WATERTANK-STANLESS STEEL 2000 L.	TANK	7550	0.00	
MECHANICAL	15244.04	WATERTANK-STANLESS STEEL 2500 L.	TANK	8750	0.00	
MECHANICAL	15245.01	SEATING WOOD	SET	400	0.00	
MECHANICAL	15245.02	SEATING STEEL	SET	500	0.00	
MECHANICAL	15245.02	SEATING STEEL	SET	500	0.00	
MECHANICAL	15361.01	SEPTIC TANK(PILE) .9/1.50/1.2(1.2)	SET	7930	2700.00	1-4 MAN
MECHANICAL	15361.02	SEPTIC TANK(PILE) .9/1.80/1.3(1.6)	SET	8540	2955.00	5-9 MAN
MECHANICAL	15361.03	SEPTIC TANK(PILE)1.05/2.10/1.4(2.1)	SET	9980	3560.00	10-14 MAN
MECHANICAL	15361.04	SEPTIC TANK(PILE)1.20/2.40/1.4(3.1)	SET	****	3910.00	15-20 MAN
MECHANICAL	15361.05	SEPTIC TANK(PILE)1.35/2.70/1.5(4.4)	SET	****	4270.00	21-25 MAN
MECHANICAL	15361.06	SEPTIC TANK(PILE)1.40/2.85/1.5(4.8)	SET	****	4590.00	26-30 MAN

TYPE	CODE	DESCRIBE	UNIT	HAT	LAB-COST	REMARK
MECHANICAL	15361.07	SEPTIC TANK(PILE)1.50/3.00/1.5(5.4)	SET	****	5110.00	31-35 MAN
MECHANICAL	15361.08	SEPTIC TANK(PILE)1.60/3.15/1.5(6.0)	SET	****	5530.00	36-40 MAN
MECHANICAL	15361.09	SEPTIC TANK(PILE)1.65/3.30/1.6(7.0)	SET	****	6100.00	41-45 MAN
MECHANICAL	15361.10	SEPTIC TANK(PILE)1.75/3.45/1.7,7.25	SET	****	6550.00	46-50 MAN
MECHANICAL	15361.11	SEPTIC TANK(PILE)2.00/4.00/2.2,15.2	SET	****	9060.00	51-100 MAN
MECHANICAL	15362.01	SEPTIC TANK(NON-PILE).9/1.5/1.2,1.2	SET		7600	2475.00 1-4 MAN
MECHANICAL	15362.02	SEPTIC TANK(NON-PILE).9/1.8/1.3,1.6	SET	8205	2370.00	5-9 MAN
MECHANICAL	15362.03	SEPTIC TANK(NON-PILE)1.05/2.1/1.4	SET	8205	2370.00	5-9 MAN
MECHANICAL	15362.03	SEPTIC TANK(NON-PILE)1.05/2.1/1.4	SET	9530	3260.00	10-14 MAN
MECHANICAL	15362.04	SEPTIC TANK(NON-PILE)1.20/2.4/1.4	SET	****	3610.00	15-20 MAN
MECHANICAL	15362.05	SEPTIC TANK(NON-PILE)1.35/2.7/1.5	SET	****	3970.00	21-25 MAN
MECHANICAL	15362.06	SEPTIC TANK(NON-PILE)1.40/2.85/1.5	SET	****	4285.00	26-30 MAN
MECHANICAL	15362.07	SEPTIC TANK(NON-PILE)1.50/3.00/1.5	SET	****	4810.00	31-35 MAN
MECHANICAL	15362.08	SEPTIC TANK(NON-PILE)1.60/3.15/1.5	SET	****	5160.00	36-40 MAN
MECHANICAL	15362.09	SEPTIC TANK(NON-PILE)1.65/3.30/1.6	SET	****	5730.00	41-45 MAN
MECHANICAL	15362.10	SEPTIC TANK(NON-PILE)1.75/3.45/1.7	SET	****	6180.00	46-50 MAN
MECHANICAL	15362.11	SEPTIC TANK(NON-PILE)2.00/4.00/2.2	SET	****	8680.00	51-100 MAN
MECHANICAL	15363.01	SEPTIC TANK(CIR.)D=.8 H.,8 TANKS	SET	1000	300.00	
MECHANICAL	15364.01	SATS-TYPE GK 100 10 MAN	SET	****	2500.00	
MECHANICAL	15364.01	SEPTIC TANK D=.8 H./1.35 H.	EACH	43.0	0.00	
MECHANICAL	15364.02	SATS-TYPE MA 206 15 MAN	SET	****	4200.00	
MECHANICAL	15364.02	SEPTIC TANK D=1.0 H./1.40 H.	EACH	65.0	0.00	
MECHANICAL	15364.03	SATS-TYPE MA 276 22 MAN	SET	****	4200.00	
MECHANICAL	15364.03	COVER SEPTIC TANK D=.80 H.	EACH	35.0	0.00	
MECHANICAL	15364.04	SATS-TYPE MA 411 35 MAN	SET	****	7200.00	

TYPE	CODE	DESCRIBE	UNIT	MAT	LAB-COST	REMARK
MECHANICAL	15364.04	COVER SEPTIC TANK D=1.00 M.	EACH	50.0	0.00	
MECHANICAL	15364.05	SATS-TYPE MA 576 50 MAN	SET	***	7200.00	
MECHANICAL	15364.06	SATS-TYPE MA 1126 100 MAN	SET	***	12500.00	
MECHANICAL	15364.07	SATS-TYPE AMA 411	TANK	***	4400.00	
MECHANICAL	15364.08	SATS-TYPE AMA 576	TANK	***	4400.00	
MECHANICAL	15364.09	SATS-TYPE AMA 1126	TANK	***	7700.00	
MECHANICAL	15420	PLUMBING EQUIPMENT-INDOOR	%	20.0	0.00	OF MATERIAL COST
MECHANICAL	15450.01	ROOF DRAIN D= 2.5"	SET	297	20.00	
MECHANICAL	15450.02	ROOF DRAIN D=3"	SET	310	20.00	
MECHANICAL	15450.03	ROOF DRAIN D=4"	SET	310	20.00	
MECHANICAL	15450.04	FLOOR DRAIN-BELL TRAP D=1.5"	SET	45.0	20.00	
MECHANICAL	15450.05	FLOOR DRAIN-BELL TRAP D=2.0"	SET	65.0	20.00	
MECHANICAL	15450.06	FLOOR DRAIN-BELL TRAP D=3.0"	SET	120	20.00	
MECHANICAL	15450.07	FLOOR DRAIN D=2.0"	EACH	5.00	0.00	
MECHANICAL	15450.08	FLOOR DRAIN D=2.5"	EACH	7.00	0.00	
MECHANICAL	15731.01	AIR CONDITIONER(WINDOW) 12000 BTU.	EACH	***	1500.00	
MECHANICAL	15731.02	AIR CONDITIONER(WINDOW) 15000 BTU.	EACH	***	1500.00	
MECHANICAL	15731.03	AIR CONDITIONER(WINDOW) 18000 BTU.	EACH	***	1500.00	
MECHANICAL	15732.01	AIR CONDITIONER(SPLIT) 12000 BTU.	EACH	***	4000.00	
MECHANICAL	15732.02	AIR CONDITIONER(SPLIT) 16000 BTU.	EACH	***	4000.00	
MECHANICAL	15732.03	AIR CONDITIONER(SPLIT) 20000 BTU.	EACH	***	4000.00	
MECHANICAL	15732.04	AIR CONDITIONER(SPLIT) 25000 BTU.	EACH	***	5000.00	
MECHANICAL	15732.05	AIR CONDITIONER(SPLIT) 35000 BTU.	EACH	***	5000.00	
MECHANICAL	15821.01	CEILING FAN(OSCILLATING) D=16"	EACH	1400	60.00	
MECHANICAL	15822.01	CEILING FAN(LONG LEG) D=36"	EACH	400	60.00	
MECHANICAL	15822.02	CEILING FAN(LONG LEG) D=48"	EACH	500	60.00	
MECHANICAL	15823.01	VENTILATION FAN D=8"	EACH	800	60.00	
MECHANICAL	15823.02	VENTILATION FAN D=10"	EACH	1000	60.00	
MECHANICAL	15823.03	VENTILATION FAN D=12"	EACH	1300	60.00	
MECHANICAL	15824.01	GLASS-VENTILATION FAN D=6"	EACH	645	60.00	
MECHANICAL	15824.02	GLASS-VENTILATION FAN D=8"	EACH	690	60.00	
MECHANICAL	15824.03	GLASS-VENTILATION FAN D=10"	EACH	750	60.00	
MECHANICAL	15900.01	ELECTRODE LEVEL REGULATOR	SET	500	100.00	
MECHANICAL	15900.02	MERCURY LEVEL REGULATOR	SET	1800	80.00	
ELECTRICAL	18110.01	ELECTRICAL CONDUIT-PVC, D= 1/2"	M.	21.0	0.00	COST/ROD=4 M.



TYPE	CODE	DESCRIBE	UNIT	MAT	LAB-COST	REMARK
ELECTRICAL	16110.02	ELECTRICAL CONDUIT-PVC. D= 3/4"	M.	25.0	0.00	COST/ROD=4 M.
ELECTRICAL	16110.03	ELECTRICAL CONDUIT-PVC. D= 1"	M.	26.0	0.00	COST/ROD=4 M.
ELECTRICAL	16110.04	ELECTRICAL CONDUIT-PVC. D= 1.25"	M.	50.0	0.00	COST/ROD=4 M.
ELECTRICAL	16110.05	ELECTRICAL CONDUIT-PVC. D= 1.5"	M.	61.0	0.00	COST/ROD=4 M.
ELECTRICAL	16110.06	ELECTRICAL CONDUIT-PVC. D= 2"	M.	90.0	0.00	COST/ROD=4 M.
ELECTRICAL	16110.07	ELECTRICAL CONDUIT-PVC. D= 2.5"	M.	145	0.00	COST/ROD=4 M.
ELECTRICAL	16110.08	ELECTRICAL CONDUIT-PVC. D= 3"	M.	196	0.00	COST/ROD=4 M.
ELECTRICAL	16110.09	ELECTRICAL CONDUIT-PVC. D= 3.5"	M.	0.00	0.00	COST/ROD=4 M.
ELECTRICAL	16110.10	ELECTRICAL CONDUIT-PVC. D= 4"	M.	314	0.00	COST/ROD=4 M.
ELECTRICAL	16111.01	ELECTRICAL CONDUIT-EXT. D= 1/2"	M.	38.0	0.00	COST/ROD=3.05 M.
ELECTRICAL	16111.02	ELECTRICAL CONDUIT-EXT. D= 3/4"	M.	56.0	0.00	COST/ROD=3.05 M.
ELECTRICAL	16111.03	ELECTRICAL CONDUIT-EXT. D= 1"	M.	80.0	0.00	COST/ROD=3.05 M.
ELECTRICAL	16111.04	ELECTRICAL CONDUIT-EXT. D= 1.25"	M.	116	0.00	COST/ROD=3.05 M.
ELECTRICAL	16111.05	ELECTRICAL CONDUIT-EXT. D= 1.5"	M.	136	0.00	COST/ROD=3.05 M.
ELECTRICAL	16111.06	ELECTRICAL CONDUIT-EXT. D= 2"	M.	168	0.00	COST/ROD=3.05 M.
ELECTRICAL	16111.07	ELECTRICAL CONDUIT-EXT. D= 2.5"	M.	0.00	0.00	COST/ROD=3.05 M.
ELECTRICAL	16111.08	ELECTRICAL CONDUIT-EXT. D= 3"	M.	0.00	0.00	COST/ROD=3.05 M.
ELECTRICAL	16111.09	ELECTRICAL CONDUIT-EXT. D= 3.5"	M.	0.00	0.00	COST/ROD=3.05 M.
ELECTRICAL	16111.10	ELECTRICAL CONDUIT-EXT. D= 4"	M.	0.00	0.00	COST/ROD=3.05 M.
ELECTRICAL	16112.01	ELECTRICAL CONDUIT-INC. D= 1/2"	M.	72.0	0.00	COST/ROD=3.05 M.
ELECTRICAL	16112.02	ELECTRICAL CONDUIT-INC. D= 3/4"	M.	96.0	0.00	COST/ROD=3.05 M.
ELECTRICAL	16112.03	ELECTRICAL CONDUIT-INC. D= 1"	M.	124	0.00	COST/ROD=3.05 M.
ELECTRICAL	16112.04	ELECTRICAL CONDUIT-INC. D= 1.25"	M.	160	0.00	COST/ROD=3.05 M.
ELECTRICAL	16112.05	ELECTRICAL CONDUIT-INC. D= 1.5"	M.	196	0.00	COST/ROD=3.05 M.
ELECTRICAL	16112.06	ELECTRICAL CONDUIT-INC. D= 2"	M.	268	0.00	COST/ROD=3.05 M.
ELECTRICAL	16112.07	ELECTRICAL CONDUIT-INC. D= 2.5"	M.	420	0.00	COST/ROD=3.05 M.
ELECTRICAL	16112.08	ELECTRICAL CONDUIT-INC. D= 3"	M.	520	0.00	COST/ROD=3.05 M.

TYPE	CODE	DESCRIBE	UNIT	HAT	LAB-COST	REMARK
ELECTRICAL	16112.09	ELECTRICAL CONDUIT-IMC, 0= 3.5"	H.	624	0.00	COST/ROD=3.05 M.
ELECTRICAL	16112.10	ELECTRICAL CONDUIT-IMC, 0= 4"	H.	688	0.00	COST/ROD=3.05 M.
ELECTRICAL	16121.01	VAF.WIRE 250V. 60°C. 2/1.5 SQ.MM.	H.	2.46	0.00	
ELECTRICAL	16121.02	VAF.WIRE 250V. 60°C. 2/1.0 SQ.MM.	H.	3.69	0.00	
ELECTRICAL	16121.03	VAF.WIRE 250V. 60°C. 2/1.5 SQ.MM.	H.	5.22	0.00	
ELECTRICAL	16121.04	VAF.WIRE 250V. 60°C. 2/2.5 SQ.MM.	H.	8.21	0.00	
ELECTRICAL	16121.05	VAF.WIRE 250V. 60°C. 2/4.0 SQ.MM.	H.	13.0	0.00	
ELECTRICAL	16121.06	VAF.WIRE 250V. 60°C. 2/6.0 SQ.MM.	H.	19.1	0.00	
ELECTRICAL	16121.07	VAF.WIRE 250V. 60°C. 2/10 SQ.MM.	H.	29.4	0.00	
ELECTRICAL	16121.08	VAF.WIRE 250V. 60°C. 2/16 SQ.MM.	H.	43.4	0.00	
ELECTRICAL	16121.09	VAF.WIRE 250V. 60°C. 2/25 SQ.MM.	H.	69.4	0.00	
ELECTRICAL	16122.01	THW.WIRE 750V. 75°C. 2.5 SQ.MM.	H.	4.24	0.00	
ELECTRICAL	16122.02	THW.WIRE 750V. 75°C. 4.0 SQ.MM.	H.	6.40	0.00	
ELECTRICAL	16122.03	THW.WIRE 750V. 75°C. 5.0 SQ.MM.	H.	10.7	0.00	
ELECTRICAL	16122.04	THW.WIRE 750V. 75°C. 6.0 SQ.MM.	H.	10.9	0.00	
ELECTRICAL	16122.05	THW.WIRE 750V. 75°C. 10.0 SQ.MM.	H.	16.8	0.00	1 WIRE
ELECTRICAL	16122.06	THW.WIRE 750V. 75°C. 10.0 SQ.MM.	H.	17.2	0.00	7 WIRE
ELECTRICAL	16122.07	THW.WIRE 750V. 75°C. 16.0 SQ.MM.	H.	25.9	0.00	
ELECTRICAL	16122.08	THW.WIRE 750V. 75°C. 25.0 SQ.MM.	H.	40.8	0.00	
ELECTRICAL	16122.09	THW.WIRE 750V. 75°C. 35.0 SQ.MM.	H.	56.0	0.00	
ELECTRICAL	16122.10	THW.WIRE 750V. 75°C. 35.0 SQ.MM.	H.	56.8	0.00	19 WIRE
ELECTRICAL	16122.11	THW.WIRE 750V. 75°C. 50.0 SQ.MM.	H.	79.2	0.00	

TYPE	CODE	DESCRIBE	UNIT	MAT LAB-COST	REMARK
ELECTRICAL	16122.12	THW.WIRE 750V. 75'C. 70.0 SQ.MM.	H.	106 0.00	
ELECTRICAL	16122.13	THW.WIRE 750V. 75'C. 95.0 SQ.MM.	H.	140 0.00	
ELECTRICAL	16122.14	THW.WIRE 750V. 75'C. 120.0 SQ.MM.	H.	178 0.00	37 WIRE
ELECTRICAL	16122.15	THW.WIRE 750V. 75'C. 150.0 SQ.MM.	H.	224 0.00	
ELECTRICAL	16122.16	THW.WIRE 750V. 75'C. 185.0 SQ.MM.	H.	272 0.00	
ELECTRICAL	16122.17	THW.WIRE 750V. 75'C. 240.0 SQ.MM.	H.	364 0.00	61 WIRE
ELECTRICAL	16123.01	NYY.WIRE 750V. 60'C. 10.0 SQ.MM.	H.	26.5 0.00	1 WIRE
ELECTRICAL	16123.02	NYY.WIRE 750V. 60'C. 10.0 SQ.MM.	H.	28.2 0.00	7 WIRE
ELECTRICAL	16123.03	NYY.WIRE 750V. 60'C. 16.0 SQ.MM.	H.	38.4 0.00	
ELECTRICAL	16123.04	NYY.WIRE 750V. 60'C. 25.0 SQ.MM.	H.	52.8 0.00	
ELECTRICAL	16123.05	NYY.WIRE 750V. 60'C. 35.0 SQ.MM.	H.	67.2 0.00	
ELECTRICAL	16123.06	NYY.WIRE 750V. 60'C. 35.0 SQ.MM.	H.	71.2 0.00	19 WIRE
ELECTRICAL	16123.07	NYY.WIRE 750V. 60'C. 50.0 SQ.MM.	H.	93.6 0.00	
ELECTRICAL	16123.08	NYY.WIRE 750V. 60'C. 70.0 SQ.MM.	H.	121 0.00	
ELECTRICAL	16123.09	NYY.WIRE 750V. 60'C. 95.0 SQ.MM.	H.	164 0.00	
ELECTRICAL	16123.10	NYY.WIRE 750V. 60'C. 120.0 SQ.MM.	H.	207 0.00	37 WIRE
ELECTRICAL	16123.11	NYY.WIRE 750V. 60'C. 150.0 SQ.MM.	H.	254 0.00	
ELECTRICAL	16123.12	NYY.WIRE 750V. 60'C. 185.0 SQ.MM.	H.	310 0.00	
ELECTRICAL	16123.13	NYY.WIRE 750V. 60'C. 240.0 SQ.MM.	H.	410 0.00	61 WIRE
ELECTRICAL	16141.01	SWITCH 1S	POINT	0.00 20.00	
ELECTRICAL	16141.02	SWITCH 2S	POINT	0.00 20.00	
ELECTRICAL	16141.03	SWITCH 3S	POINT	0.00 25.00	
ELECTRICAL	16141.04	SWITCH 4S	POINT	0.00 25.00	
ELECTRICAL	16141.05	SWITCH 5S	POINT	0.00 20.00	

TYPE	CODE	DESCRIBE	UNIT	MAT	LAB-COST	REMARK
ELECTRICAL	16141.06	SWITCH 40 WATTS	POINT	0.00	20.00	
ELECTRICAL	16141.07	AUTOMATIC SWITCH(TICINO)20-25	POINT	0.00	25.00	
		A.				
ELECTRICAL	16141.08	SWITCH(VETO) 1S	POINT	0.00	20.00	
ELECTRICAL	16141.09	SWITCH(VETO) 2S	POINT	0.00	20.00	
ELECTRICAL	16142.01	PLUG SINGLE TYPE	POINT	0.00	20.00	
ELECTRICAL	16142.02	PLUG COUPLE TYPE	POINT	0.00	20.00	
ELECTRICAL	16142.03	PLUG WATERPROOF	POINT	0.00	0.00	
ELECTRICAL	16142.04	POWER PLUG	POINT	0.00	25.00	
ELECTRICAL	16142.05	POWER OUTLET WITH EARTH LEAKAGE	POINT	0.00	30.00	30 MA.
ELECTRICAL	16142.06	PLUG VETO SINGLE	POINT	0.00	10.00	
ELECTRICAL	16142.07	PLUG VETO DOUBLE	POINT	0.00	10.00	
ELECTRICAL	16145.01	INDOOR SAFETY SWITCH 3P 30 A.	SET	0.00	60.00	WITH FUSE
ELECTRICAL	16145.02	INDOOR SAFETY SWITCH 3P 60 A.	SET	0.00	80.00	WITH FUSE
ELECTRICAL	16145.03	INDOOR SAFETY SWITCH 3P 100	SET	0.00	100.00	WITH FUSE
		A.				
ELECTRICAL	16145.04	INDOOR SAFETY SWITCH 3P 200	SET	0.00	150.00	WITH FUSE
		A.				
ELECTRICAL	16160	STARTER 20-40 W	EACH	10.0	0.00	
ELECTRICAL	16401.01	H.C.C.BREAKER 45AF5KAIC V.2P S-32AT	SET	0.00	20.00	NOT INCLUDE STEEL BOX
ELECTRICAL	16401.02	H.C.C.BREAKER 45AF5KAIC V.2P38-45AT	SET	0.00	20.00	NOT INCLUDE STEEL BOX
ELECTRICAL	16401.03	H.C.C.BREAKER125AF22KA1 Y3P15-125AT	SET	0.00	50.00	NOT INCLUDE STEEL BOX
ELECTRICAL	16401.04	H.C.C.BREAKER250AF35KAIC Y3P160-250	SET	0.00	50.00	NOT INCLUDE STEEL BOX
ELECTRICAL	16401.05	H.C.C.BREAKER400AF35KAIC Y3P250-400	SET	0.00	60.00	NOT INCLUDE STEEL BOX
ELECTRICAL	16401.05	H.C.C.BREAKER400AF35KAIC Y3P250-400	SET	0.00	60.00	NOT INCLUDE STEEL BOX
ELECTRICAL	16402.01	LOAD CENTER 1PHASE 3 WIRE 6 HOLE	SET	0.00	50.00	NOT INCLUD BREAKER RATING
ELECTRICAL	16402.02	LOAD CENTER 1PHASE 3 WIRE 8 HOLE	SET	0.00	60.00	NOT INCLUD BREAKER RATING
ELECTRICAL	16402.03	LOAD CENTER 1PHASE 3 WIRE 12 HOLE	SET	0.00	100.00	NOT INCLUD BREAKER RATING
ELECTRICAL	16402.04	LOAD CENTER 1PHASE 3 WIRE 16 HOLE	SET	0.00	130.00	NOT INCLUD BREAKER RATING
ELECTRICAL	16402.05	LOAD CENTER 1PHASE 3 WIRE 20 HOLE	SET	0.00	160.00	NOT INCLUD BREAKER RATING
ELECTRICAL	16402.06	LOAD CENTER 1PHASE 3 WIRE 24 HOLE	SET	0.00	190.00	NOT INCLUD BREAKER RATING



TYPE	CODE	DESCRIBE	UNIT	MAT	LAB-COST	REMARK
ELECTRICAL	16403.01	LOAD CENTER 3PHASE 4 WIRE 12 HOLE	SET	0.00	100.00	NOT INCLUD BREAKER RATING
ELECTRICAL	16403.02	LOAD CENTER 3PHASE 4 WIRE 20 HOLE	SET	0.00	160.00	NOT INCLUD BREAKER RATING
ELECTRICAL	16403.03	LOAD CENTER 3PHASE 4 WIRE 30 HOLE	SET	0.00	250.00	NOT INCLUD BREAKER RATING
ELECTRICAL	16404.01	BREAKER RATING 10-50 A. 1 P	SET	0.00	0.00	
ELECTRICAL	16404.02	BREAKER RATING 10-60 A. 3 P	SET	0.00	0.00	
ELECTRICAL	16510.01	FLUORESCENT LIGHTING 1/20 W	SET	230	20.00	
ELECTRICAL	16510.02	FLUORESCENT LIGHTING 2/20 W	SET	330	25.00	
ELECTRICAL	16510.03	FLUORESCENT LIGHTING 1/40 W	SET	250	25.00	
ELECTRICAL	16510.04	FLUORESCENT LIGHTING 2/40 W	SET	365	30.00	
ELECTRICAL	16510.05	FLUORESCENT LIGHT(WITH LEG) 1/20 W.	SET	250	20.00	STEEL LEG = .5 H.
ELECTRICAL	16510.06	FLUORESCENT LIGHT(WITH LEG) 2/20 W	SET	350	25.00	STEEL LEG = .5 H.
ELECTRICAL	16510.07	FLUORESCENT LIGHT(WITH LEG) 1/40 W	SET	270	30.00	STEEL LEG = .5 H.
ELECTRICAL	16510.08	FLUORESCENT LIGHT(WITH LEG) 2/40 W	SET	385	30.00	STEEL LEG = .5 H.
ELECTRICAL	16510.09	FLUORESCENT&U-PLASTIC COVER 1/20 W	SET	200	20.00	
ELECTRICAL	16510.10	FLUORESCENT&U-PLASTIC COVER 2/20 W	SET	330	25.00	
ELECTRICAL	16510.11	FLUORESCENT&U-PLASTIC COVER 1/40 W	SET	250	25.00	
ELECTRICAL	16510.12	FLUORESCENT&U-PLASTIC COVER 2/40 W	SET	465	30.00	
ELECTRICAL	16510.13	FLUORESCENT&U-PLASTIC COVER 1/32 W	SET	200	20.00	
ELECTRICAL	16510.14	FLUORESCENT&PLASTIC COVER 2/20 W	SET	420	25.00	
ELECTRICAL	16510.15	FLUORESCENT&PLASTIC COVER 2/40 W	SET	585	25.00	
ELECTRICAL	16510.16	FLUORESCENT&PLASTIC COVER 4/20 W	SET	740	30.00	
ELECTRICAL	16510.17	FLUORESCENT&PLASTIC COVER 4/40 W	SET	1030	40.00	
ELECTRICAL	16511.01	FLUORESCENT&STEEL COVER 1/20 W	SET	145	20.00	
ELECTRICAL	16511.02	FLUORESCENT&STEEL COVER 2/20 W	SET	270	25.00	
ELECTRICAL	16511.03	FLUORESCENT&STEEL COVER 1/40 W	SET	170	20.00	
ELECTRICAL	16511.04	FLUORESCENT&STEEL COVER 2/40 W	SET	320	25.00	
ELECTRICAL	16511.05	FLUORESCENT&STEEL LEG 1/20 W	SET	200	20.00	

TYPE	CODE	DESCRIBE	UNIT	MAT	LAE-COST	REMARK
ELECTRICAL	16511.06	FLUORESCENT&STEEL LEG 2/20 W	SET	310	25.00	
ELECTRICAL	16511.07	FLUORESCENT&STEEL LEG 1/40 W	SET	220	30.00	
ELECTRICAL	16511.08	FLUORESCENT&STEEL LEG 2/40 W	SET	360	30.00	
ELECTRICAL	16511.09	FLUORESCENT&TRI.STEEL COVER 1/20 W	SET	190	20.00	
ELECTRICAL	16511.10	FLUORESCENT&TRI.STEEL COVER 1/40 W	SET	240	20.00	
ELECTRICAL	16511.11	FLUORESCENT&TRI.STEEL COVER 2/20 W	SET	315	25.00	
ELECTRICAL	16511.12	FLUORESCENT&TRI.STEEL COVER 2/40 W	SET	365	25.00	
ELECTRICAL	16511.13	FLUORESCENT&TRI.STEEL LEG 1/20 W	SET	210	20.00	
ELECTRICAL	16511.14	FLUORESCENT&TRI.STEEL LEG 1/40 W	SET	260	30.00	
ELECTRICAL	16511.15	FLUORESCENT&TRI.STEEL LEG 2/20 W	SET	335	25.00	
ELECTRICAL	16511.16	FLUORESCENT&TRI.STEEL LEG 2/40 W	SET	385	30.00	
ELECTRICAL	16512.01	FLUORESCENT 20 W	EACH	32.0	0.00	
ELECTRICAL	16512.02	FLUORESCENT 40 W	EACH	34.0	0.00	
ELECTRICAL	16512.03	FLUORESCENT 32 W	EACH	65.0	0.00	
ELECTRICAL	16512.10	ELECTRICAL CONDUIT-IMC. D= 4"	M.	688	0.00	COST/ROD=3.05 H.
ELECTRICAL	16513.01	INCANDESCENT LIGHTING 40-60 W,D=8"	SET	90.0	20.00	
ELECTRICAL	16513.02	INCANDESCENT LIGHTING 40-60 W,D=10"	SET	110	20.00	
ELECTRICAL	16513.03	RECTANGULAR GLASS COVER 10"/10"	SET	140	20.00	
ELECTRICAL	16514.01	BRANCH LIGHTING	SET	190	15.00	
ELECTRICAL	16514.02	BRANCH LIGHTING&COVER D=10"	SET	260	20.00	
ELECTRICAL	16552	BALLAST 20-40 W	EACH	38.0	0.00	
ELECTRICAL	16620.01	EMERGENCY LIGHTING 2/35 W	SET	2720	0.00	
ELECTRICAL	16620.02	EMERGENCY LIGHTING 3/35 W	SET	3600	0.00	
ELECTRICAL	16620.03	EMERGENCY LIGHTING 3/40/60 W	SET	3920	0.00	
ELECTRICAL	16920.01	CUT OUT SWITCH 20 A.	SET	0.00	10.00	
ELECTRICAL	16920.02	CUT OUT SWITCH 30 A.	SET	0.00	10.00	
*** Total ***						
				****	268305.0	



ประวัติผู้เขียน

นาย สมนึก ธรรมรัตนะศิริ เกิดวันเสาร์ที่ 25 สิงหาคม พ.ศ.2505 เดิมมีภูมิลำเนาอยู่ที่จังหวัดจันทบุรี สำเร็จการศึกษาชั้นมัธยมต้น จากโรงเรียนลาซาลจันทบุรี ได้มาศึกษาต่อชั้นมัธยมศึกษาปลาย ที่โรงเรียนทิวธาภิเชก กรุงเทพฯ จนกระทั่งสำเร็จการศึกษา ปีพ.ศ.2523 ได้เข้าศึกษาระดับอุดมศึกษา ในคณะวิศวกรรมศาสตร์ มหาวิทยาลัยเกษตรศาสตร์ ได้รับ  
 วิทยาศาสตรบัณฑิต สาขาวิศวกรรมโยธา เมื่อปีการศึกษา 2526 และได้เข้าศึกษาต่อ  
 วิทยาศาสตรมหาบัณฑิต ณ บัณฑิตวิทยาลัยจุฬาลงกรณ์มหาวิทยาลัย ในปีการศึกษา

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